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LOOKING FORWARD

"Now the New Year reviving old Desires,
The Thoughtful Soul to Solitude retires."

—Omar Khayyam.

THE time-honoured custom of looking backward and forward at the beginning of a New Year in an endeavour to assess what has gone and to discern what is to come offers, in this winter of our discontent, little attraction to the "thoughtful soul" of the building industry, who is all too conscious of past, present and future restraints on his activities to indulge optimistic hopes for the future. He may well retire to solitude if his "desires" should lead him to think of any early return to the halcyon days of free enterprise.

The record of the past year, which may be summarised as "houses, schools, factories, maintenance and repairs," is also the official programme for 1948, with the possibility of a decrease in the volume of work in the second half of the year. House building and school building are to continue much as heretofore, though "the situation is to be reviewed in the summer of 1948." Shortage of timber appears to be the chief difficulty, but Mr. Bevan has recently expressed guarded hopes of further supplies being available later. We trust that they will be and would urge that house building in particular should be not merely maintained but greatly increased. The population of this country is living for the most part under seriously overcrowded conditions, which find their inevitable reflection in discontent, irritability and low output.

Mr. Bevan recently pointed with a certain amount of satisfaction to the 460,000 homes which have been provided since the end of the war. It seems an impressive record, but becomes less so when it is remembered that the number of new permanent houses at the time of the statement was no more than 148,000, with 16,000 war-damaged houses rebuilt, the remainder of the accommodation consisting of temporary houses, existing properties converted, repaired or requisitioned, etc. If private house builders had been allowed to get to work at the end of the war we should by now have probably half a million new permanent houses—perhaps more—erected, moreover, at a reasonable cost. By this time the idle funds of the building societies would be in use, great numbers of workers would be on the way to owning their own houses, and there would be much less money "chasing too few goods."

In connection with the Government's capital investment programme for this year, there has been much talk of the "mobility and interchangeability of labour," and presumably the large numbers of building workers for whom in the near future there may be no work in their own industry are to be directed into "more essential" occupations. We have never seen an official or any other statement of the process of turning, say, a plasterer into a miner or an agricultural worker, and it seems doubtful whether the problem has yet been studied in all its complicated detail. Yet Sir Stafford Cripps has said that "The cutting down of projects which would merely keep people unemployed is of no value." The Government must take care lest this should be the result of their policy towards the building industry. Short-term policies are no doubt unavoidable at critical times like the present, but it is wise to keep future obligations in view.

There is a very good case, indeed, for keeping the building industry at full strength, for there is more than enough urgent work to be done, and if a start is to be made promptly on our enormous arrears of building as soon as conditions allow, we shall need all the labour we can get, especially the highly skilled labour for which there is so little call at the moment. Even in these desperate times it would be good policy for the Government to allow a token number of buildings of high quality to be put in hand in order that craftsmen such as masons, stone carvers, wood carvers, joiners, workers in decorative metalwork and other specialist work may have the means and opportunity to retain their hard-won skills. If a nucleus of workers is not there to work and train others in their crafts and trades, our plight may be desperate indeed when commercial building begins once more.

If the Government were to follow out this suggestion, architects and other professional men would benefit. Architects in private practice are probably the hardest hit of all. They have lost nearly all their work through delay in the development and redevelopment of our towns. Much might be done to help them to keep their offices open. Private bodies and persons might well be encouraged to have their plans prepared against the time when building will again be possible on a pre-war scale. Official architects are better placed. As Sir Lancelot Keay said in his recent Presidential Address to the R.I.B.A., the forward preparation of necessary plans by local authorities can and should be proceeded with. It would be helpful, too, if local authorities generally ceased to add to their architectural staffs and gave out more of their work to architects in private practice, following the lead which has been given by some of our more progressive county and municipal authorities.

The supreme need of our time is increased production. According to the economists an increase of 10 per cent. will see us out of danger. It is well within our capacity and must be reached if we are to survive and enjoy a reasonable standard of life. Greater production, too, is the only way to halt inflation. Happily, there are some signs that workers are realising that it is not the number of printed pieces of paper called pound notes which they receive that matters, but the amount of goods and services for which these can be exchanged. Already the miners and the steelworkers have responded vigorously to the nation's call for greater output.

Output in building is far too low and must be greatly increased if the industry is to make its due contribution to national recovery. Bonus-on-output schemes are now being devised and will be put into operation widely during the coming year. But the system is on trial. It is not enough that a bonus should be paid merely on a proportional increase on the old level of output. The basic level needs to be stepped up. The building workers can do it, and we believe they will.

Greatly increased production is surely the motto for us all in 1948. A year hence, if we do our duty, we shall be appreciably nearer the time when we can again entertain some of those "old desires" with a reasonable hope of their being fulfilled.

THE MODERN SHOPFRONT

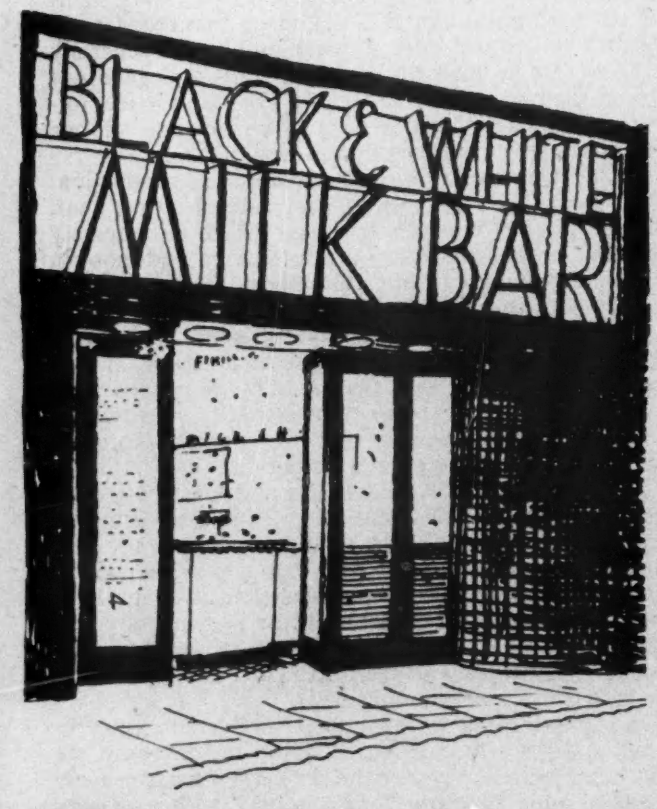
By Edward Passmore, A.R.I.B.A.

THE phrase "modern shopfront" is, perhaps, apt to be misleading as well as harmful, in much the same way as the term "modern architecture" has developed in the minds of the general public as a manner of design and not of building. But shopfront design in England to-day, with the exception of a few examples introducing new surfacing materials and a simplification of detail, even as designed by the "avant garde," varies in principle and precept very little from that of thirty years ago.

This observation is put forward not in defence of traditional design, but merely to indicate that the basic conditions of street showmanship are constant and admit precious few fundamental innovations.

The history of the English shopfront is cogently illustrative of the social manner of the time. The early conformity of street etiquette, one shop vying with another only in the matter of minor elevational detail—detail kept well within the bounds of unobtrusive good taste—was in itself a mirror of eighteenth and early nineteenth-century culture. This scene, quite charming in retrospect, continued well into the Victorian era. As Victorian trade expanded the big store came into being, and gradually the small shop, owned and managed by shopkeepers usually living on the premises, felt the power of this new influence to swallow up their trade. The individual shop nevertheless survived and although only very few eighteenth-century examples remain in their original guise (St. James's-street can still boast a few, and their exclusiveness is still quite impressive), we still have with us many later types which are redolent of the early Victorian scene—the butcher, the dairyman, the mantle or gown shop, even the undertaker; many of these fronts have over the period of a hundred years developed a "genre" of their own. They now appear, perhaps, slightly naive, but they also serve as a timely reminder of laudable street manners.

The modern street scene at its worst boasts no such simplicity of approach and the attendant expansion of commerce has largely ruled out the functions of the individual shop connected with the integrated whole.



THE BLACK AND WHITE MILK BAR. An open-front cafeteria, designed as day-and-night architecture.

THE CITROEN SHOWROOM, PARIS. The "father and mother" of all "show" architecture. At the time of its design it administered a lively shock by virtue of its sheer glass facade rising four floors in height. Obviously fronts of this kind must remain *tours de force*, for their immense scale reduces the human figure, the yardstick of all good design, to insignificant proportions.

Increasingly intense competition has, of course, had its effect, and although the principle of shopfront has changed very little, the sales value of display and the juxtaposition of the various elements have further complicated the issue.

Function.

The basic quality of a shopfront is that it should attract customers. This quality is interpreted in widely differing ways according to the shop's position in the town or village, its type of clientele (regular or casual), the standard and type of goods sold and the viewpoint of its owner. But attract it must, for few shops to-day can boast of a regular clientele (in the eighteenth or nineteenth century sense of the word) which does not require constant stimulation. This stimulation is generally effected by varying the display, for although the colour scheme of the shopfront can from time to time be changed, the main elements of the design are static and can only serve as a frame for the goods displayed.

In recent years the shortage of materials and general economic necessity have at least given us time to assess at its true value the standard of English shopfront design. Before the war (that period of comparative prosperity) the average shopfront was quite obviously suffering from various forms of growing pains. For instance, the now almost comic French period, with its overlaid style of decoration and extraordinary manipulation of patterned glass, was imported to this country and had a considerable vogue; a few remnants of this short-lived style still remain, and despite its obvious vulgarity it did not lack a creditable vitality. The non-reflecting window, with its attendant temptation to be used as a refuse bin, was of doubtful lasting value and when the war came fundamental problems still had to be solved with an almost paralysing shortage of materials. This situation brought us temporary shopfronts, frequently highly ingenious and of a high merit as designs. Asbestos sheeting, wallboard and restricted areas of glass were the keynotes of most of the schemes, and although few gained high marks for opulence and "sales value," their advent had a purifying influence and helped to point the way to simpler solutions in the future. That future is, at the moment, very much before us still, for industry has not yet reached a stage when the

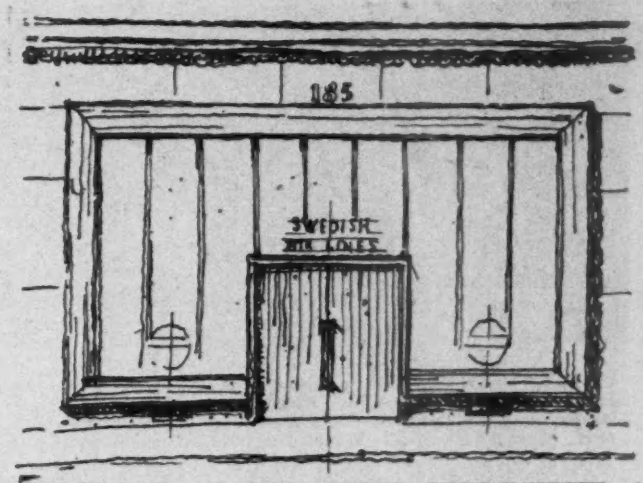
best work can be produced. Isolated examples of good shopfronts have been achieved recently, but too few to point to a general trend. Mr. Gerald Lacoste's Swedish Air Lines design in Regent-street is well worthy of note. The heavily moulded teak surround is impressive in its boldness and the well-proportioned glass areas form an excellent foil to the subtle shaping of the entrance door. This is obviously a quality shopfront, a good example, in fact, of twentieth-century individual design, executed in Swedish materials.

One of the most pertinent landmarks in the recent developments of shopfront architecture is the milk bar. Although this form of shop was introduced here well back in the middle thirties its open treatment, which carries no particular precedent with it, is really the basis of the motif now so popular in America to-day. Window display is dispensed with and the serving counter is in full view from the pavement. Full-length glazed doors, which can be folded back leaving the whole length of frontage open to the street, are an integral part of the design. This form of shop obviously has its limitations, but its principle, a miniature covered market, is sound enough, and psychologically the open front is more inviting than the screened type. As new ideas in merchandise arise new ideas in planning will probably develop with them, for the shopfront, open or closed, should be the expression of the shop itself.

The problem of integrated shopfront design will clearly have to be handled stringently from now on, for the aftermath of the war has seen the arrival of a bewildering number of "non-quality" shops. Lack of requisite control has seen many of these "little emporiums" spring up almost overnight in many of our best shopping streets. While admitting that every man should be allowed to make a living and that there must (even under our system of Government) be shops for the rich and poor, the current mode of expression and the quality of advertising hardly indicate an increased awareness of taste on the part of the designers. Control of fascia lettering and general expression must obviously come under some sort of control if the rot is to be stopped effectively.

The American Scene.

The country most advanced in the art of shop design to-day is undoubtedly America. The almost frightening efficiency of their big department stores has not allowed them to spare much thought for the design of small individual shops and fronts, but except in the poorer quarters, such as Brooklyn, New York can boast of an exceptionally impressive array of shops, large and small, many of high quality.



THE SWEDISH AIR LINES FRONT, REGENT-STREET. A fine-quality front designed in teak and made in Sweden. It possesses definite character and at the same time offends none of the canons of the architecture of the street. Gerald Lacoste, A.R.I.B.A., architect.

Perhaps the predominant trend to-day is the open shopfront. The display window is frequently maintained, but display is scaled down to a few representative items and does not in any way obscure the clear view into the shop itself. In this way the shop develops into part of the shopfront and the interior is designed with a view to attracting customers from the street. This technique in design is possible in almost every type of shop; on Fifth Avenue an exclusive women's shoe store is planned in this way and the highlights of New York society can be seen trying on various shoes.

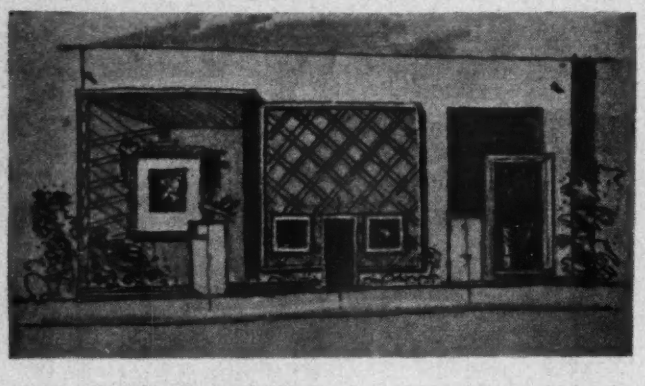
Accent is placed upon taste in name-plates, etc.; these are generally so judiciously placed as to make it unnecessary to rely upon mere size for successful street publicity. Many shops are becoming well known to the public not only by name but by virtue of their interesting design and form of display, a point which might well be borne in mind in this country.

Lighting—hidden, diffused and open—is a factor which has contributed much to the success of the American shop. The design of a lighting scheme is a matter of taste and varies with the type and size of shop, but generally multiple-source lighting is preferred, accenting special products and enhancing the design of the interior from without and within. Hidden lighting helps to give subtlety to a shop interior and does not obtrude itself on the design. Provided a sufficient quota of light is obtained over the required area, the general feeling of a medium to large-sized shop is more attractive when this form is used. Direct lighting, when handled with artistry, has also been used in many modern shops with success, but American designers leave few stones unturned and they have displayed a fine sense of taste in pendant design, etc.

The success of recently designed shops in the States is due to the approach of the designers. The scheme is invariably treated as a cohesive whole, the shopfront becoming an integral part of the shop itself. To achieve this end, side projecting piers are frequently masked by the internal wall finish, which is brought flush with the frontage line. Glazing is considered incidental to the homogeneity of the general line. Stallboards, in the traditional sense of the word, are disappearing except in very small shops selling small goods; other than these tend to bring the glazing almost down to street level, again enhancing the openness of the shop from the viewpoint of display.

One surprising fact is outstanding in American shopfront design to-day—the absence of any really new materials. Wood of all kinds is naturally popular, and the beauty of some of the schemes is impressive. Generally, the plain wall is favoured, finished in varying types of plaster, and it is in the general design and proportioning of surface that

THE ANGEL HOTEL, LIVERPOOL. A very creditable reproduction of the hotel's early atmosphere, replacing a front of the coloured glass sheet type. There is obviously a limited field for this sort of thing, but in the case of licensed premises especially no satisfactory alternative to "period" design has yet been found. Stevenson-Jones and Rice, AA.R.I.B.A., architects.



HOLLYWOOD BAROQUE. Here is a run of shops recently completed at Beverley Hills, California. Designed to attract fashionable trade, this type of treatment is not without architectural merit, but could hardly be considered suitable except in specialised circumstances.

the success of most schemes lies. A new saddler's shop has recently appeared in New York with walls faced with heavy leather. Surprisingly enough, the result is successful, though here again the credit is the designer's, for his proportioning of the leather panels and general treatment of the whole scheme are beyond reproach.

The lesson we can learn from the new movement in shop design in America is that expensive shops and shopfronts are not necessarily the most attractive. Here, obviously, the designer's art comes into play, for with a trained sense of colour, form and the play of light, almost any scheme can attract—as it should attract—in a reasonably unobtrusive and cultivated fashion.

Integrated Design.

Few countries are so beset with difficulties in the formulation of good shopfront design as England is to-day. The general shortage of even normal materials, lack of goods to sell and display—these two factors alone are sufficient to place a serious brake upon really progressive design. But the problem of integrated street shopfront design has many other obstacles to overcome, chief among them being possibly the individual opinions and wishes of the shop owner. A recent instance of a large block on the South Coast with a long run of small shops is a case in point. The block suffered badly from blast during the war and the shop piers, part of the interior and the fascia were recently refaced with glazed tiles. Many people applied for the shops when the work was finished, but being of necessity a pretty variegated assortment of trades the tiled piers and fascia did not meet with their universal approval. Whereas the butcher was only too pleased with his shop, the lady who sold smart dresses was displeased with hers, claiming, no doubt, that her goods needed something rather more svelte and *soigné* than glazed tiles to show them off at their best. The trouble in this instance lay in the fact that shop surrounds were finished in too dominant a fashion, instead of leaving the individual shops to express themselves within the bounds of good taste.

While it is certainly not true to say that what America does to-day England does to-morrow, in the instance of shop design it would seem, taking our economic state into consideration, that the designers in the United States have developed many ideas which it would pay us, with reservations, to follow in this country. The open shop is attractive and the shopfront gains in scale in not having the restriction of a back board. It gives a wider view of goods and has an infinitely more inviting air than the separate show-window type. Aesthetically it is generally more satisfying and, for what it is worth, complies with current modern ideas regarding spatial planning, etc. Obviously, the same principle cannot be applied to all shops. The very small type—tobacconists' kiosks, etc.—is a problem in itself, but ideas in display in this size of design could well do with some revision in this country. The decorative merit of stacked pyramids of cigarette cartons is doubtful; a greater simplicity of display would bring up the scale of the shop, and greater coherence with large neighbours would result.

While in England we have not been in the position to produce a definite trend in shop design since the war, there have been many new examples on traditional themes which are very creditable in their aim and execution. The two illustrations of shopfronts at Farnham in Surrey are fine examples of "genre" design. These two shopfronts were inserted into a late Georgian house, the existing entrance door to the living accommodation above setting the tone and proportion for the new fronts. The craftsmanship was entirely local and the architect, Mr. G. Maxwell Aylwin, F.R.I.B.A., must be congratulated upon adding further graciousness to what is already one of the finest Georgian streets in England. The street sets the tone of the designs, and few people would cavil in this instance at the choice of conformity to period.

"The Angel," in Dale-street, Liverpool, is the city's oldest tavern, and the architects, Stevenson-Jones and Rice, took the opportunity (when the existing comparatively recent front had to be removed because of serious war damage) to redesign it in a form resembling its original character. Plywood panels replace the vitrolite and Jacobean bricks were used for the stallboard. The title lettering is in baywood, gilded on the front with apple green edges, and the bow window is painted ivory. Here, again, the choice has been to design within a past period, but the scheme has been handled well, and we have yet to discover a modern style of design in "pub" architecture which gives as much satisfaction as those of the past.

These are just two instances of isolated traditional design, and it so happens that the position and type of trade indulged in merit this particular treatment. Obviously, traditional design has its limitations, but there are still many places left in England where the architectural tradition is too strong to be renounced completely.

The modern street does and will give all architects and designers the chance to improve the architectural scene of to-day, and although various schools of thought may clash on many seemingly vital issues connected with layout, displays, and expression generally, the problem in the end resolves itself to a matter of taste. Taste can, of course, be interpreted in many ways, but if all designers bear in mind the fundamental principles of proportion, colour and choice and use of materials, it is difficult to see, however "individualistically" some shopfronts may be designed, how the general impression of a shopping street can be anything but satisfactory. That every shop should be designed with the same motif is obviously undesirable; in the end the solution to the whole problem rests with the individual designers to co-operate, where possible, but above all to design in harmony with the architecture around them.

In this way we will at least avoid a scene such as is presented by Oxford-street to-day. It may well be that the graciousness of a shopping street such as the Rue de la Paix cannot be repeated, but if our shops and the architecture about are reasonably co-ordinated, at least our streets will regain some of their lost repose, and that in itself will automatically lead us to finer design.

Tailpiece.

SHOPS AT FARNHAM, SURREY. Here are two examples of how to design within a closely co-ordinated " period " street. The obviously sensitive and scholarly detail and fine craftsmanship give originality to a design which, while in one sense traditional, renders any other form of front unthinkable and, indeed, anachronistic. G. Maxwell Aylwin, F.R.I.B.A., architect. The spandrel in the lower illustration was carved and executed by Mr. K. Keeble-Smith, of the Farnham School of Art.

PROSPECTS FOR 1948

The Rt. Hon. ANEURIN BEVAN, M.P., Minister of Health.

Message from the Rt. Hon. Aneurin Bevan, M.P., Minister of Health.

I AM very glad to be given the opportunity of sending a New Year message to the readers of *The Builder*. In many spheres this year 1948 will be a crucial one, but already there are indications that the increased productive effort which the country needs is going to be forthcoming. In the housing field, the average monthly rate of completion of new permanent dwellings during September, October and November (the latest months for which figures are available) has been higher than ever before. The total number of families rehoused since the war has passed well beyond the half-million mark. Moreover, thanks to the store of houses under construction which has been built up at the same time, we can look forward to maintaining and even increasing this rate of progress during 1948.

The Government has shown by its recent decisions full recognition of the fact that housing has a special importance not only as a method of increasing production of food and coal but also as a vital factor in sustaining morale and increasing production among the whole population. I ask for the co-operation of the building industry in carrying through the job on which such fine progress has been made.

A Happy and Fruitful New Year to you all! ANEURIN BEVAN.

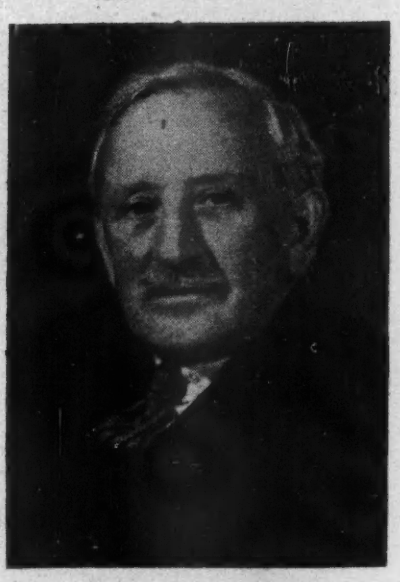
Message from the Rt. Hon. C. W. Key, M.P., Minister of Works.

I AM glad to be able to convey my New Year Greetings to your readers. In the past year the building industry despite great difficulties has made a splendid contribution to our national recovery and reconstruction. The building materials industries also made great and largely successful efforts to remedy the shortages of materials. The whole building industry—master-builders, architects, supervisory staff and operatives—can look back on 1947 with pride and satisfaction in a big job done.

None of us have illusions about the fresh difficulties that confront us in 1948. All who are engaged in the many activities embraced by the word "building" have to shoulder their share of the temporary sacrifices which the country must make in order that Britain may once again be prosperous. The cuts in industrial building are imposed by the serious economic situation. Many of you, I know, have experienced disappointment at the thought that some of the high hopes you held, and the schemes you planned, cannot be realised in the coming year. But we must all look to the future and ensure that during this difficult time the foundations are well laid for the further great advance in building operations that will come later on.

To do this we must continue to develop our resources and our techniques. The need for progress, efficiency and the use of the results of scientific research is greater than ever to-day. The setting up of the Advisory Council on Building and Civil Engineering Research and Development is a proof that we intend to fit ourselves for the great tasks that lie ahead.

My best wishes to you in 1948. CHARLES W. KEY.



The Rt. Hon. C. W. KEY, M.P., Minister of Works.

From the President, R.I.B.A.

AT this time, when it is difficult to look to the future without some feeling of anxiety, I should like to send a word of sympathy and encouragement to all in the great Building Industry. Restricted by controls, accused of inefficiency by self-appointed critics, and encouraged to anticipate a building millennium by those in authority, it is once again threatened with the spectre of unemployment as the result of the cuts in capital expenditure.

The higher degree of security for which many have worked so assiduously can only be achieved by increasing output and maintaining the highest standards of craftsmanship. Everywhere the "seller's market" is on the wane. The whole resources of the industry must therefore be applied towards cutting costs whilst maintaining standards. In this way, given greater freedom of action and applying itself to methods of construction in which materials available in the home market are made the greatest use of, the industry will satisfy the demands made upon it and employment will, in time, increase.

Let us, then, find encouragement in our knowledge of the volume of work which must be undertaken when conditions are opportune. Much preparatory work by architects must continue, and the building industry must apply itself to ways and means whereby these designs may be converted into concrete form in the shortest time and at the lowest cost. In that way, and in that way only, will a healthy industry continue. LANCELOT H. KEAY.

From the President, B.I.N.C.

I WELCOME the opportunity of conveying to the Building Industry a message for 1948. Forefront in my mind is my lifetime motto: "Drive your business, don't let it drive you." I am deeply conscious of the many difficulties at the present time in driving along the building road; in fact, it is more like an uncharted track through a jungle than any pretence at a road, and the greater the obstacles the greater the drive to overcome them. Just as we are assured on all sides that this great country of ours will drive through all the difficulties which surround us, so I am equally sure that our great building industry, with the assistance of its many able leaders, can triumph over its obstructions and hindrances. It *is* a great industry, with a great past and a greater future; its greatness, I suspect, is not fully recognised even by those who are in day-to-day touch with its widespread activities. Building, in its all-embracing character, is the centre round which revolve to a greater or lesser degree all other industries, with these, in turn, interdependent one on another, so that anything affecting the Building Industry has a national repercussion.

Equally great is the task that lies ahead, and no one can visualise its completion, but only guess when the demand will slow up. There cannot, therefore, be any reason for despair. Advantage must be taken of the present restriction to take stock and prepare for the "go-ahead"; there is pressing need for greater co-operation between all sections, and now is the time for discussion in readiness

for the work. In other words, the drive can be accomplished with team work from the highest to the lowest levels from start to finish.

Unity is strength, and will overcome all pessimism, like the freshening wind that blows away the fog. So, with my sincere good wishes for 1948 and thereafter, I commend the following lines to be forever kept in mind:—

The world is full of problems,
There's much to cause distress;
We all are bowed beneath the cares
That daily round us press;
There's only one solution,
'Tis simply stated, thus:
"A little less of you and me.
A little more of us."

FREDERICK W. PURSE.

From the Chairman, Quantity Surveyors' Committee, R.I.C.S.

THE best aspect of building affairs for 1948 is that all sides of the industry are pulling together. Indeed, I am by no means unhopeful; it is true that when the crisis came in 1947 many difficulties seemed to be in process of being resolved; the labour force had been built up to pre-war strength and new agreements had been made, whilst the production of materials was improving. Our hopes were shattered for the time being by the economic situation and the consequent plans for curtailment of building activity. Since the "crisis," however, the adoption of the common-sense scheme for incentives to increased output is most encouraging. Many problems arise, of course, in connection with present-day contracts, and these are plainly being faced by the contractors in a realistic and straightforward way. It is the aim and wish of the surveyors, so far as they may advise and assist, to do all they can to ensure that whilst the building employer may get "value for money," the contractor may also get a square deal.

It is, no doubt, clear that during 1947 the amount of work in hand was greater than the capacity of the industry in men and materials, and some slowing-down of demands would have been necessary in any event. Our greatest wish in the New Year is that the Government will recognise the value of the advice given by the accredited representatives of the building industry and that, on their advice, the fullest care will be taken to avoid waste of resources and energy in applying restrictions and cancellation of work.

To stop the completion of buildings at uneconomic stages, to restrict fuel supplies to the manufacturers of essential materials, and to allow the dispersal of building craftsmen into other occupations would so obviously prejudice the resumption of a proper building programme that we earnestly hope the Government will carry out its plans in full consultation with the architects, surveyors, builders and operatives. I am certain that the advice so given by the advisory bodies will be offered in a spirit of unity, not in any sense sectional but in a true spirit of service to the community.

H. J. VENNING.

From the President, A.B.T.

THE year now opening appears to bring little comfort to those in the building industry, operative, technician or professional. Already the effects of the Cripps cuts are beginning to be felt.

Unfortunately this is not new, as casual labour, seasonal unemployment and insecurity have always been typical of building. The shocking thing is to find, in an era of planning for which we have waited so long, planning indeed, but planning for shortages and unemployment. Nor need we look to the other side of the fence for help, for "the City" approves the cuts and assisted at their birth.

Together, in face of this policy, we must strive for a saner programme for building, for the re-equipment of our worn out industries, schools and medical services, for rehousing our homeless people. Above all, looking closer home, perhaps this jolt will make us at least tackle our own obsolete top-heavy industry, with its thousands of "bucket and bicycle" bosses and its hopeless lag between theory and practice. Or are we so complacent that we shall still muddle along until an exasperated nation forcibly reorganises us on quite different lines?

1948 may not be particularly pleasant, but it will certainly be a most significant year. It may even, sobering thought, teach us something, and that would not be a bad thing.

KENNETH CAMPBELL.

From the President, I.A.A.S.

IT is with great pleasure that I send a New Year's greeting to the building industry through the columns of its premier newspaper.

As a Scot, I naturally look at this season for whatever gleams of hope may be discerned. The most resolute optimism, however, can hardly dissipate the gloom that encircles us—a gloom intensified this New Year by the impending cut in capital expenditure. I want to ask two questions: Can this cut be imposed to the full without disintegrating the building industry? Can the nation afford to allow one of its greatest industries to be so reduced that it would take years to build it up again? I believe that the answer to both questions is: No. That some adjustment is necessary I do not doubt. The Government must, for instance, find the right gear for its housing programme; they cannot continue to start houses at twice the rate that they can finish them, and certain large-scale public works may well be postponed. But, we are told, it is the aim to restrict building to what is necessary for export purposes, for agricultural purposes and for a modified housing programme. Surely, to satisfy requirements in these fields alone would absorb more than our industry, as at present constituted, is capable of producing?

Coal, steel and timber—we know how difficult these essential materials are; but the increased output of coal and steel is one of the brightest features of this New Year. And now that we are again trading with Russia, is there no hope of timber from the East?

Many people will feel with me that if we were getting value for money in building there would be no need to impose a cut at all—in a word, our capital expenditure would be nothing like as great as it is now. The system under which we are working needs revising from top to bottom. The New Year resolutions that I would commend to our Authorities are therefore as follows: (1) simplification of control procedure; (2) the closer adjustment of the volume and types of building to the materials available; (3) better distribution; (4) reform of the less efficient local housing authorities and (5) the vigilant investigation into costs of materials, manufactured parts and erection. Everything comes back in my view to this question of costs. It is in our interests and the interests of the British people to maintain the industry at its present strength. It should therefore be the aim of everyone of us who is connected with the industry to eliminate waste and under-production and so bring costs into relation with what the nation can afford. The Ministries, of course, have a big responsibility in this direction.

1948 is going to be our testing year. This twelve-month will decide the future of the building industry for a decade. We have our part to play and must see to it that the Government play theirs. It is my conviction that by resolution, united action and singleness of purpose the building industry can emerge from this ordeal strengthened, revitalised and tempered for the unique contribution it can make to the prosperity of Great Britain and to the well-being of our people.

W. FORBES CAMPBELL.

From the President, N.F.B.T.E.

AS could only be expected at this time of economic crisis, the building industry, because it is one which accounts for about half of the country's capital investment programme and is not directly connected with the export drive, finds itself at the beginning of 1948 in a state of uncertainty. But let us not at the turn of the year be too pessimistic.

The White Paper, or Guide for 1948, divides the year roughly into two halves. Taking the industry as a whole, no drastic reduction is planned for the first half. There will, it is true, be cuts in industrial building and road works, but there are to be increases under the heads of agriculture and fuel and power. During this period much will depend, first on the success of the Government's

overall programme—and on this the recent figures of increased production of coal and of iron and steel are encouraging—and, second, on the ability of the industry to absorb in work which is allowed to continue the labour thrown out from jobs which are stopped. Here it must be remembered that building labour is not readily interchangeable. It might well be found necessary, therefore, in order to avoid unemployment or the aggravation of the present lack of balance in the industry by the loss to building of labourers, who are already in short supply, and of the younger craftsmen, to increase, instead of curtail, the amount of licensed work.

The programme for the second half of the year will be reviewed in June. This, as Mr. Aneurin Bevan has said, will depend largely on the supplies of timber. We all share the hope expressed by the Minister on behalf of the Government that sufficient will be available to enable the programme to be extended. But whatever the uncertainties, the duty of all concerned with the building industry is clear: To carry out the work that falls to them efficiently, speedily and economically. Our eventual programme is almost unlimited, and even between now and the end of 1949 the White Paper envisages the completion of nearly half a million houses.

Thanks to the recent wages agreement, 1948 should be a year of real peace in the industry and, given the wholehearted co-operation of employers and operatives in the working of systems of incentives, we shall, I am sure, do a good job of work.

E. J. SMITH.

From the Chairman, National Joint Production Council.

OWING mainly to the fuel crisis which developed from the long period of abnormal weather with which the year begun, 1947 has been yet another year of too few materials—particularly cement—being chased by too many jobs. It has, therefore, been one of considerable difficulty for all those, like my colleagues and myself on the National Joint Production Council for the Building In-

(*Continued on page* 59)

HOUSING THE ELDERLY

SOME SOCIAL AND PLANNING CONSIDERATIONS

By Trevor H. Howell, M.R.C.P.Ed.

DURING the past few years there has been so much difficulty in housing old people that a number of homes or hostels for the elderly have been created. Each of these has received many applications for accommodation—three or four for every vacancy, in fact. One home built for 25 residents had no fewer than 300 letters.

It seems that there are three main categories of elderly persons requiring residential accommodation urgently. First, those who cannot stand in queues and do their own housework on account of increasing feebleness. Second, those who are a burden to their relatives for one cause or another. Third, those who have no proper home or who suffer from loneliness. As the number of people over the age of 60 is steadily increasing year by year, this problem of housing the elderly is now becoming one of our most urgent social questions.

The Nuffield Survey.

It was thought until recently that quite a large number of old folk were living either in almshouses, hostels or public assistance institutions. Surveys carried out under the auspices of the Nuffield Foundation, however, have exposed this view as a fallacy. It was found that some 95 per cent. of the aged population in London, and 98 per cent. in the provinces, were living in their own homes. Many were unsuitably housed, but under existing conditions there was no better accommodation available to which they could go. Quite a number of elderly men and women live alone in one room, with nobody to look after them. As the feebleness of increasing years makes shopping more and more difficult these solitary folk tend to live constricted lives, to eat less than they should and to neglect themselves. After a while they become ill or some accident befalls them. They go into a hospital, have good food and proper treatment; but if their illness is a long one their room may be given up so that there is no place to which they may go on discharge. Then the choice between entering an institution or burdening relatives arises, with the result that many old folk prefer to stay in hospital rather than face the outside world again.

In consequence, doctors must now consider some of the social problems of old age, especially those involving the housing of elderly persons.

There has been a sharply rising flood of welfare work in this sphere carried out by lay bodies. The most important organisation is probably the Nuffield Foundation, which has considerable funds available for developing housing and other schemes to help and benefit the elderly. A number of grants have been made in aid of various projects for hostels, homes and other institutions for the older section of the population. The National Old People's Welfare Committee co-ordinates the activities of some 30 other bodies, and pays considerable attention to the housing problem, being probably the most expert lay body in this field. Others include the "Hill Homes," of Highgate, the Church Army Housing, Ltd., the Salvation Army and the Women's Voluntary Services.

As a result of the experience of these organisations, a certain amount of standard practice is emerging. Unfortunately, owing to the present difficulties in obtaining permits for new buildings and the price levels imposed by the Government, most of the work achieved has consisted of conversion. It has been found more suitable to convert two or even three adjacent houses into a home or hostel than to have two separate buildings. Odd spaces and small rooms can be more easily hidden or utilised under these conditions. Ground-floor accommodation is more easily provided, and this is a most important matter when dealing with the aged. When we come to consider new buildings, however, the cottages and flats of the Church Army Housing, Ltd., are among the best examples at present. This body has built no fewer than 868 houses in recent years and has had time to overcome initial troubles by now. The writings of Olive Matthews about houses and flats for old folk are becoming well known and contain suggestions for several differing types of accommodation, including her favourite "Granny plus" flats. Among pre-war buildings, the dwellings known as "Pearson's Retreat" in Worthing, consisting of two-roomed bungalows, have many points to commend them as a model for later and more elaborate works.

Practical Considerations.

When designing dwellings for the elderly, it is important to remember some facts about their physical condition and mental state. Old people, for instance, tend to hold fixed habits and do not easily adjust their routine to any novel circumstance. They do not like the idea of moving to a new home in a fresh district, where they must go to strange shops or travel by different routes. Familiar discomfort is usually preferred to new-fangled tidiness. In any case, the aged do not stand transplanting and are best housed in the district with which they are already familiar. Old people do not see as well as their juniors, nor are their muscular reactions as prompt or active. Slippery floors, loose carpets and narrow winding stairs all lead to an accident sooner or later. As muscular strength diminishes it becomes too much of an effort to go upstairs.

It must also be remembered that the body temperature of the aged is lower than that of younger folk. They "catch cold" more easily, and many an old man has died as a result of having to go to an outside lavatory or fuel store on a cold winter's night. Warmth is essential to the aged and for this reason a row of dwellings is often more suitable than a semi-detached residence. The proximity of neighbours who can be summoned in case of illness, accident or other emergency is also a great blessing.

Points in Planning.

From these indications it can be seen that dwellings for old people need to be planned with considerable care and attention to detail. It is desirable that they should not be isolated from the rest of the community, but that their homes should be regarded as part of the general housing scheme. A level, sunny, sheltered location is preferable, near shops, churches, post office and bus routes. "Amenities adjacent" must be the keynote in this respect. Since the needs and demands of old folk vary, so should there be different types of houses or flats to meet their requirements. Some couples like a spare bedroom for visitors, others want to live in two rooms as much as possible. A bed recess in the living-room will often suit the single or widowed old person very well indeed. The fact that there is no change of temperature when going to bed is a great point in its favour. Any method which avoids going out into the cold for coal, sanitation and washing is desirable for the same reason. To prevent domestic muddle from becoming too chaotic, it is well to provide a separate properly equipped kitchenette. The position and height of both washing sink and cooker need consideration if tiresome stooping and neglect of cleanliness is to be overcome, and coved skirtings might be used more often than they are.

Other points to be noted are the position of the fireplace, so that the back may give warmth to another room in the building; the need for a small porch to break draughts; the provision of handrails, especially in the bathroom; and the very careful placing of lights and windows in the apartment. The elderly prefer a coal fire to any form of radiator when it comes to personal warmth.

Attention should also be paid to what might be termed the "external interests" of the occupants. Many old folk enjoy watching children at play, neighbours coming and going, people passing in the street, and so on. They get pleasure in pottering about in the garden, sitting on a bench in the sunshine or visiting a public-house, and generally derive happiness from the everyday life going on around them. Therefore the siting of dwellings for the elderly is almost as important as the details of their construction.

Adaptation and Conversion.

Since there is not likely to be much new building for some time, most of the accommodation for old people will probably have to take the form of adaptation of existing buildings. Several Housing Associations or Trusts have been formed to help the homeless aged, and these have often done good work. The usual practice has been to seek houses with eight or more rooms. The more space available on the ground floor the better. Very large rooms are divided into two, except for those selected as dining-room or lounge. In some homes each room is provided with its own water supply, sink, fitted cupboard and gas cooker. Others prefer the cooking arrangements to be central, under the control of the matron or housekeeper. Where the kitchenette system is favoured, a corner is usually partitioned off for the purpose. As far as possible, a bathroom and lavatory are provided on each floor.

One small home known to the writer has accommodation for 24 old men and women. There are six single rooms, four double rooms, two rooms holding three beds, and one which contains four. In addition it has a dining-room, a lounge and three bathrooms, with quarters for two or three resident staff on the top floor. As far as possible the inmates are allowed to bring their own furniture and belongings. Old folk are happiest when surrounded with their "bits and pieces." This means that some storage space may be needed for furniture which is not in use at any given time. Hence, outside sheds, garages, etc., are most desirable in houses used as old people's homes. Conservatory space may be used as either a sitting-room or as a workroom in sunny weather. If two or three adjacent houses are taken over together, a covered way or passage from one to another will be necessary. The extra ground floor accommodation in such buildings can be devoted to bedrooms for the more feeble and infirm of the occupants. Basement space can be employed for domestic, cooking and storage purposes. In one institution, however, it was devoted to a billiards room, which was very popular with the old men who lived there. Some form of central heating combined with gas or electric radiators is desirable, although the love of the elderly for a coal fire has been already noticed. The best compromise is the provision of radiators in rooms used for sleeping and eating, with an open grate in the lounge. It should be emphatically stated that *no* provision of a sick bay for residents in such a home can ever be commended. Otherwise it develops into an inconvenient and badly-run nursing home. This can only defeat the object for which the building was designed and will probably end in its early closure.

The Aged Sick.

So far, we have considered the needs of the healthy section of the population; the infirm and ill also deserve attention. It is a mistake to send old folk who are sick far away from their homes. Visiting by those of their own generation becomes difficult under such conditions, and the patients lose the urge and incentive to get back to their own place. They miss the titbits of local gossip brought in by nurses, orderlies and relatives. They are oppressed by the unfamiliar surroundings. Doctors, matrons and casual strangers may think "what a nice, clean, tidy hospital"; but the old woman in bed longs for some homely touch and loathes the polished, shiny, smart ward. She finds little or nothing to look at during the long hours of the hospital day. If she could only have an occasional glance out into some familiar street near her home, how exciting that would be in comparison. The absence of pictures, ornaments and personal possessions definitely lowers the morale of the elderly. So beware of designing pretty hospitals in the middle of the country.

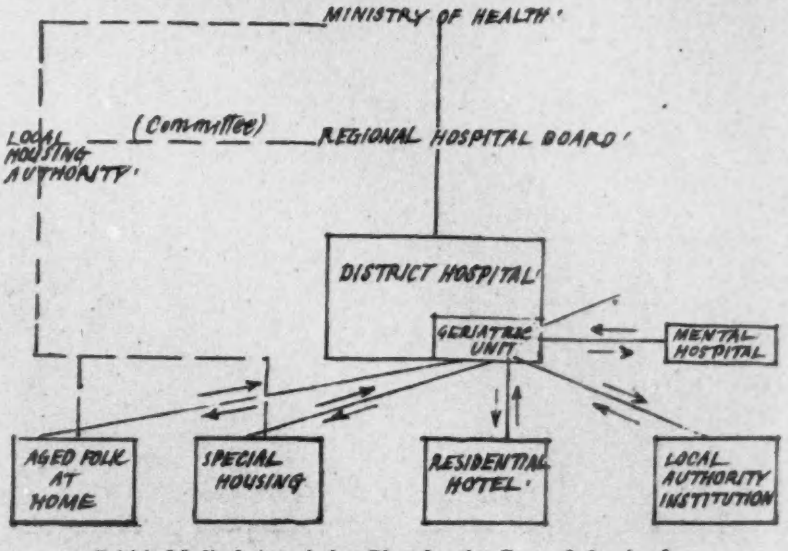
When considering the layout of a hospital for old people, there are two or three points which must not be overlooked. The first is the need to keep such special departments as physiotherapy, X-rays, occupational therapy and out-patients fairly near one another on the same level. It is surprising how much ground needs to be covered by a patient on a stretcher or in a wheel chair during the course of the investigation and treatment of most common illnesses. The time that can thus be wasted without any real need is considerable.

A second matter often forgotten is the desirability of catering to the needs of those cases which are out of bed for part of the day. There is usually nowhere for them to sit except beside their beds, which merely clutters up the wards and hinders access to windows, etc. If outside shelters, or inside day rooms were provided, the psychological stimulus of being able to leave the ward for a few hours could be exploited to the full. Since the inmates of hospitals for the acute sick do not usually need these amenities, institutions for the elderly, chronic or long-term patients are not provided with the necessary facilities. But hospital is only a temporary incident to the former; it is a real slice of life to the latter. For the same reasons, an occupational therapy department with, perhaps, a workroom attached, is important in the treatment of those whose illness may last more than a few weeks. Similarly a small gymnasium for purposes of rehabilitation should be considered as an integral part of any hospital for the elderly or long-term sick. Other units, such as the operating theatre, out-patient department and pathology department may be on the lines of general hospitals. But when we come to the question of wards for the elderly, the usual pavilion system of 20-30 beds needs alteration. Fewer large wards of this type are required. Far more desirable are several smaller sections taking from two to twelve patients to give the individual, intimate and homely atmosphere.

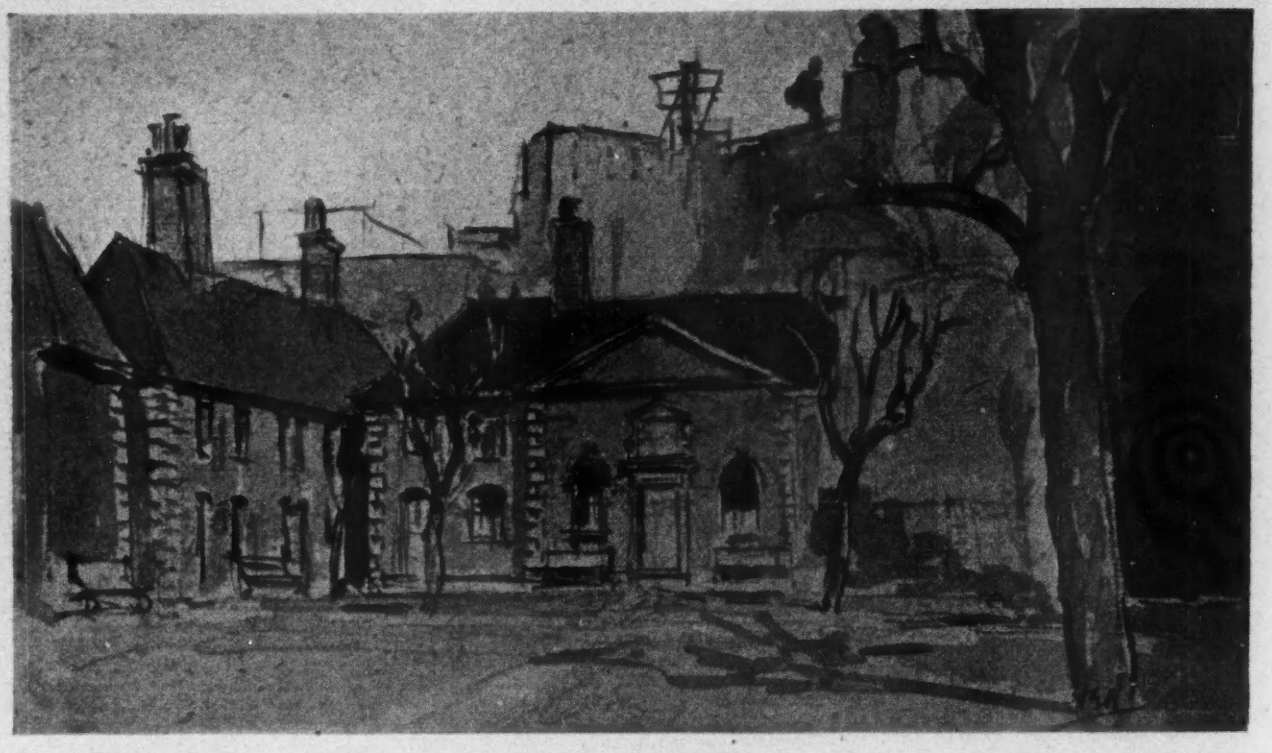
The B.M.A. Plan.

A committee appointed by the British Medical Association recently issued a report on the Care of the Aged and Infirm. This suggested that special departments called "Geriatric Units" should be set up in large hospitals to care specially for elderly patients. The work of these units should be linked with the local housing accommodation for old folk, old people's homes or hostels, local authorities' institutions and mental hospitals as well as the general hospital. To achieve this end, it is suggested that there should be a standing liaison committee between the Regional Hospital Board and the local authority responsible for housing. This arrangement would, it is hoped, prevent old people from being overlooked both medically and as regards housing accommodation. Since the Ministry of Health is concerned with both matters, it should not be impossible to get such an arrangement in being. At present, while members of the medical profession realise that the proportion of old persons in the total population is steadily rising, those responsible for future housing plans have not perceived the implications of this trend. The next half-century will become the age of the elderly man and woman. Let us not neglect our own future.

** A recent scheme of housing for aged persons —"Keynes House," Hornsey—is illustrated in this issue.—ED.



British Medical Association Plan for the Care of the Aged.

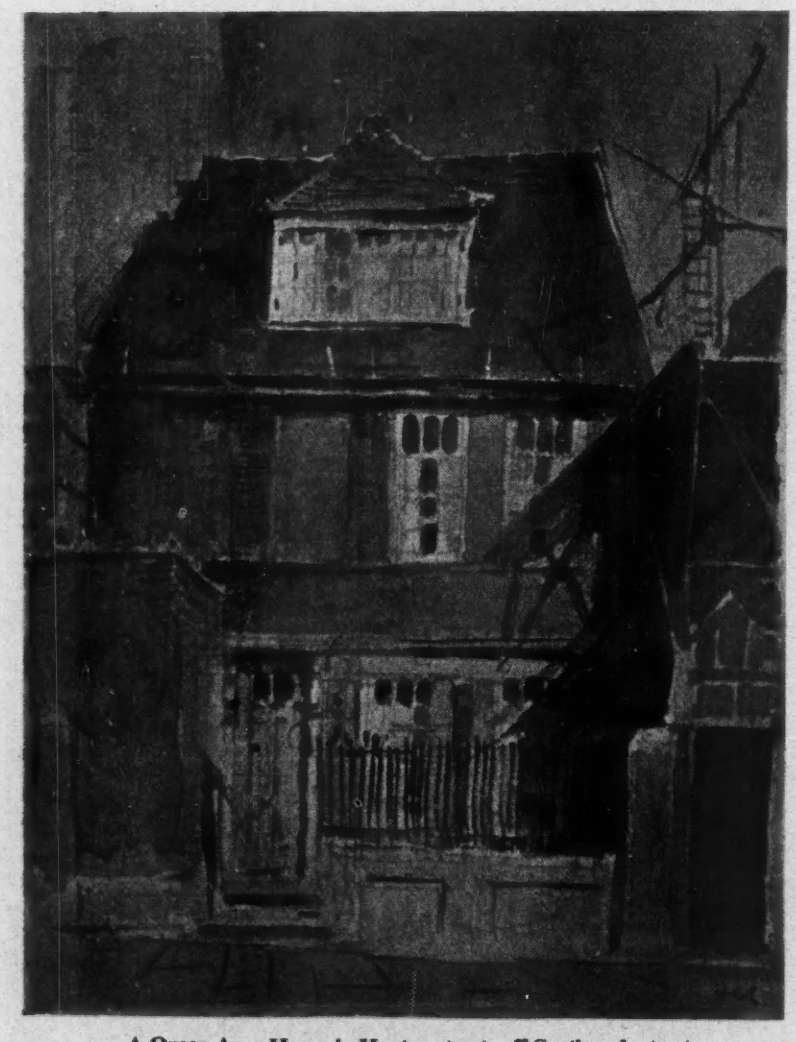


The Hopton Almshouses, Hopton-street, Southwark.

RIVERSIDE GLEANINGS

By A. E. RICHARDSON, R.A.

(With Sketches by the Author)



A Queen Anne House in Hopton-street, off Southwark-street.

IT was Saturday afternoon, with the temperature rising to eighty in the shade, when this investigation began. The sky was cloudless and of a deep blue; the distant view of St. Paul's from Westminster Bridge seemed to place the City on the Surrey side. The lighting was ideal for studying the river and the buildings on the northern bank. In spite of all the architectural blunders of recent years, the *mise en scene*—river, bridges, turrets and nondescript facades—attained to splendour. If one undertakes a voluntary task of this kind, one must be prepared to search for viewpoints which in the ordinary way are inaccessible, for example, in mid-stream or, failing that, from the height of a convenient bridge.

How few among Londoners know the intricacies of the Surrey shore from the County Hall to Southwark? There seems to be a general disinclination to perambulate the labyrinth which extends easterly beyond the County Hall. And if you do undertake such a pedestrian task, either in walking, writing or sketching, you will wonder at your temerity. Yet your labours will be repaid by the feast of sights, and there is good food and drink at the George Inn, Southwark.

The secrets of the "Nether End of the Bank" east and "Bancke-ende" west have become obscure. We are apt to forget that this was the amusement place for Elizabethan London. Here were the Bear Gardens and Playhouses, the notorious stews and taverns; and near by was the single-woman's churchyard, the "Cross Bones" of antiquity. To this remote quarter flocked all grades of society;

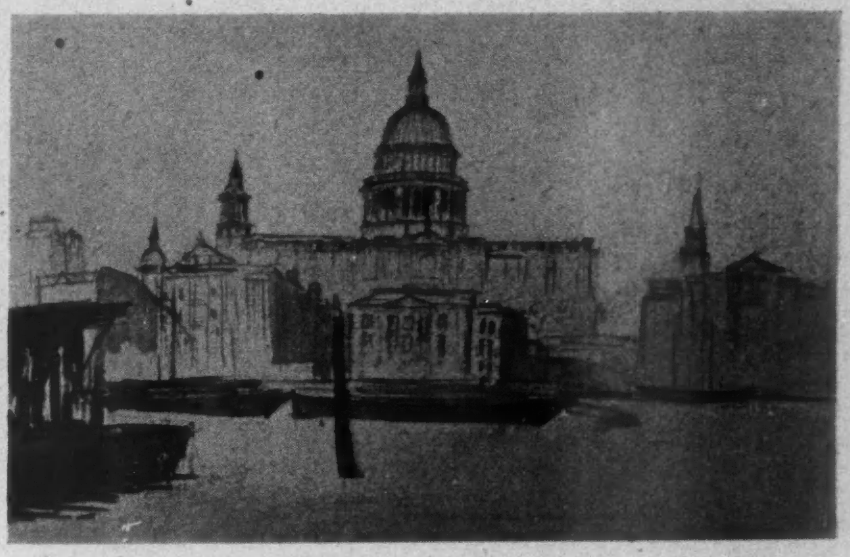
the round O of Shakespeare's day was a never-failing attraction. From the Bear Gardens and bull-baiting grounds the theatre eventually developed. These places were all put down during the Commonwealth, but they were revived for a short time under Charles the Second, and then, at the close of the seventeenth century, were removed to Hockley in the Hole.

Bankside had yet a future as a place of resort, hence the number of tea-gardens and taverns which came into existence in the eighteenth century. This, no doubt, explains the selection, at a later date, of the site for the Lion Brewery. Meanwhile sundry light industries were established on vacant land. These included foundries, glass-works and dyeing. How few to-day realise that Shakespeare lived near the Bear Garden in 1596, or that, in the days of James the First, Beaumont and Fletcher, those twins of playwriting, were lodged near The Globe. For a time Oliver Goldsmith practised as a physician in this curious locality. The very soil is impregnated with memories: ghosts and shades spring up on every side, yet pilgrims are few and America has still to discover the south bank of the Thames.

It is indeed a privilege to wander amidst the ruins of a portion of the great metropolis, once teeming with activity. Here you can view Somerset House and Bazalgette's Embankment, noting the trees of the Temple and the delicate lead-covered fleche which marks the Law Courts. There is no place better than the Shot Tower for such a view. The clarity of the air on this particular occasion brought out the colour of the buildings and marked the silhouette of the town in the true manner of Canaletto. It was the infinite variety of the sky-line which was so eloquent of the nonchalance of the Strand sector of London. Selecting a point of view whence to sketch the Shot Tower, the Lion Brewery and the County Hall was not difficult, but to reduce the varying masses to miniature dimensions was another matter. London, in this instance, proved to be the master scene painter. The heterogeneous grouping possesses its own massive qualities, fretting the sky-line and stemming the tidal waters with insolent disregard for deportment. When this view is warmed by the rays of the westering sun it becomes subtle in tone, almost Venetian in its accidental harmonies.

The next important view of the north bank is that from Bankside, the site chosen by the Minister of Town and Country Planning for the tall chimney which is to challenge the dome of St. Paul's. If the Minister had been endowed with the eyes of an artist he *would* have used his undoubted authority to protect London from what the public at large regard to be a menace. The most conceited of men have their moments of remorse, but political leaders are not concerned with beauty.

From the site of the projected Bankside Power Station you see Southwark Bridge, and farther east the cavernous opening of Cannon-street Station, with the railway bridge that wades through the waters. Beyond this is London Bridge, now the solitary survivor of the famous masonry bridges of the lower reaches of the Thames. The tone of the river is brown, the colour



St. Paul's, from Bankside.

The Shot Tower and Lion Brewery, from Waterloo Bridge.

Smith's Wharf, Queenhithe, City.

is never blue or silver-grey, and thus can never mirror the mighty cupola of St. Paul's. To-day the classic Cathedral can be viewed in its entire bulk, epitomising the indomitable spirit of London.

South Londoners have the right to enjoy their cross-river spectacles. It is a form of compensation for the burden of warehouses and close-packed industry which fences them in. At the present time there are other vantage points from which to view the spire of St. Bride's, the small cupola of St. Benet's and the graceful circlings of St. Mary-le-Bow. There is magic in the name and in the form of these venerable city churches, Aldermarie, St. Michael, St. Andrew. Let not the unthinking sweep away these damaged structures which the modern Hun failed to destroy. When Sir Christopher Wren laboured for the rehabilitation of the city he regarded it to be a place of churches, and so it remained for many years until ecclesiastical authority wavered.

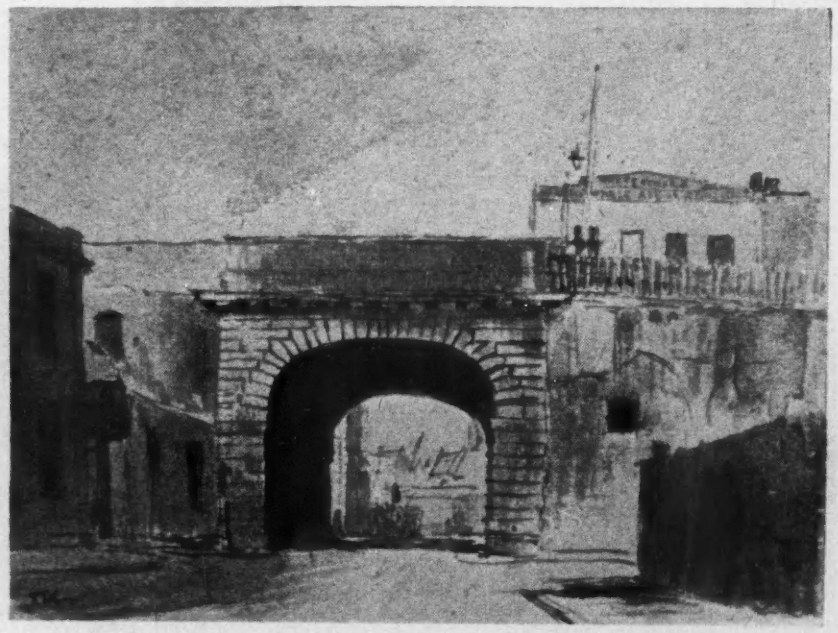
There are the familiar broad barges, substantial in outline and of great capacity, some moored to buoys almost in mid-stream; others inshore suggesting the lines of an embankment. And the sun renders everything in brilliant light and shade, transforming crudity into beauty, gilding delicate spires and metallic finials, accenting furrows and throwing insignificant detail into telling and appropriate relief.

The third great riverside scene is the view of Tower Bridge looking downstream from London Bridge. Here is the most fantastic sight in London's dramatic scenery. All that one has imbibed of English history by sea or land seems to be concentrated in this semi-fabulous water-gate, with its bascules. In form and detail it is preposterous, yet it remains respectful to the Tower near by. The giant towers seem to take on the stance of Gog and Magog, anchored by cables and condemned to stand as sentinels for all time. Such is the modern water-gate to all London; so indefensibly exotic, yet so appropriate to the surroundings. Viewed in the morning, the twin masses stand black against the eastern light; by high noon the proportions are attenuated; then later in the day shipping, cranes, barges, dock buildings and clutter seem to frame an undulating avenue of water. Truly this strange contraption should be named the Gate of Great Adventure.

And what of the lesser sights of the north bank? Few attain to the grandeur of the Venetian Palaces; few indeed have more than accidental pretensions to be deemed architectural. Few of these warehouses are glorious —none rise to the heights of an ideal. If you are patient and tolerant you will be guided to recognise unexpected beauty. There is, for instance, the great warehouse known as Smith's Wharf, which in full sunshine takes on the colour of some vast palace. Well, seeing is believing, and if all utility buildings were to be similarly proportioned, Londoners would be grateful.

The mysterious quarter of Southwark holds many surprises for the artist and the architect — as, for example, the charming Queen Anne fragment in Hopton-street, with its bricked-up windows and comfortable dormer. Schooled in masonry and not contemptuous of concrete, you will respect the wisdom which has retained one of the lesser arches of the approach to Rennie's Waterloo Bridge. This is the elliptical arch which carries the roadway over Belvedere-road. Here you have an opportunity to note the differences between the modern feat of engineering and the old, slow, painstaking process of building in hewn granite, block by block. It is not likely that this arch will be replaced for years; in fact, by the year 2048 it will be regarded as an ancient monument.

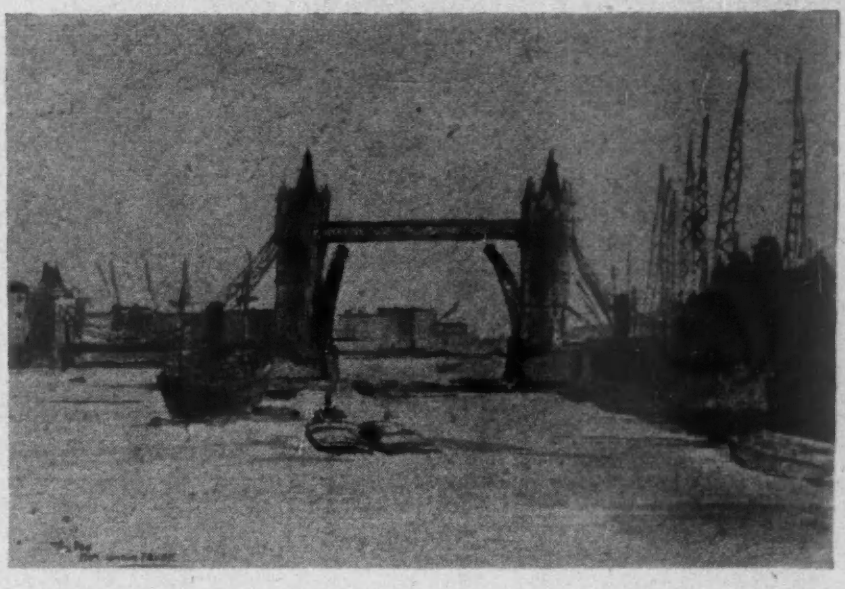
The transience of London is brought to mind in these days as never before. We realise at long last that works we thought would continue through the centuries are almost, if not quite, as fragile as human beings. It is this process of change which now strikes the Londoner so forcibly. In all the wonder and immensity of the great city it is the unexpected which appeals to the artist. There is beauty and poetry in decrepitude. How confoundingly singular is the present state of the Anchor Tavern. Here is a building which is so insecure that it has to be propped at nine different points. Yet it continues to be serviceable. And how delightful to have a tavern called The Anchor that is literally symbolic in its present statement of security. Here is a lesson in shoring which should be of profit to students. It is idle to deny the charm and fascination of London, which never has been and never will be a perfect



The remaining arch of Rennie's Waterloo Bridge Approach, from Belvedere-road.

city. Take, for example, the curious oddments which form the approach to Cardinal's Wharf. It is said that Wren had an office at No. 49. Here the attraction is the blend of incongruous masses of brickwork; beginning with some sedate, late seventeenth-century fronts, with attractive pentices and rising to Edwardian ostentation. The atmospherical effects make all the difference, for they are aids to the imagination.

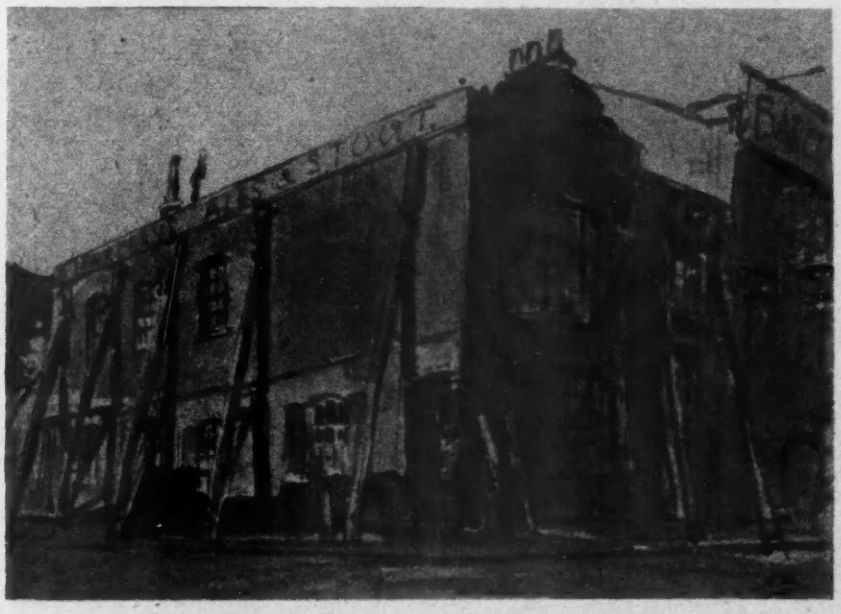
It is, however, the contrasts which make up the charm. These and other odd groupings are so human that even in adversity they appeal to seeing eyes. Far be it that any of these fragments should stand in the way of logical progress; but they are plaintive



Right: The Pool at Tower Bridge, from London Bridge.

Centre: The Anchor Tavern, Bankside.

Bottom: Old Houses, Bankside, including Cardinal Wharf.

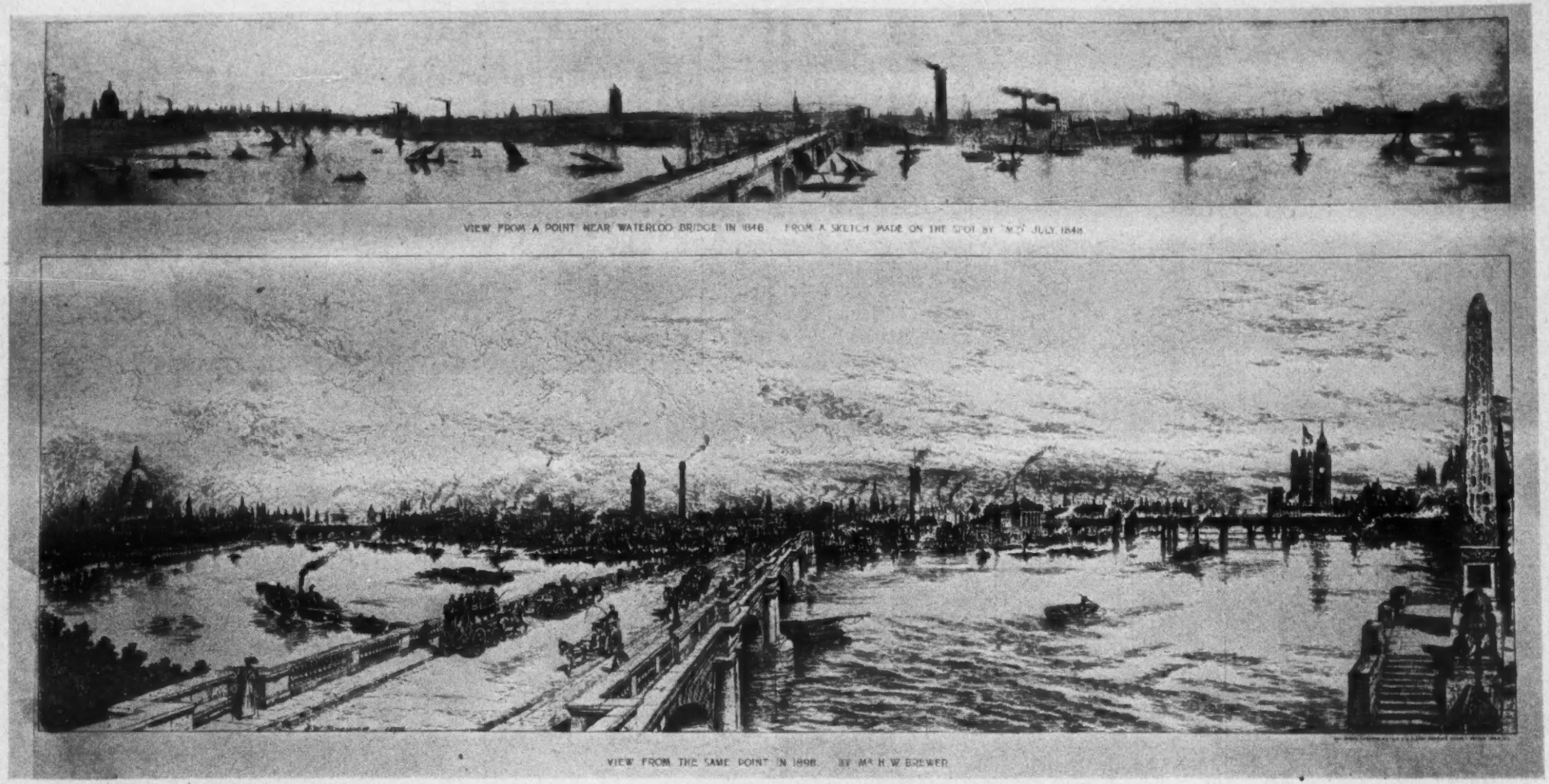


enough to be recorded. In Hopton-street you will chance upon the mutilated remains of what must have been a delightful composition in the days of Queen Anne. These are the Alms Houses, now forlorn and tottery. When these were first built the world went very well. They were planned to face north and to retain the sunlight. This is a point which all eminent town planners should consider in laying out the new riverside formations. The most telling secrets of social rectitude are those which concern light and air; so if you would help your fellow beings, see to it that your buildings are endowed with grace.

Such was my chief thought when I stood in front of the entrance to the Lion Brewery in Belvedere-road, having exhausted myself with sightseeing and having used up my stock of sketching material. Indulgent and tolerant reader, whoever you may be, do not forget that the past is our heritage and our principal treasure. It is within our sight and touch in all parts of this great metropolis, where we still live and work with hope in our hearts. The present is never so present as is the realism which confronts us. We are the heirs of the ages, we rediscover as we grow to maturity how much we are indebted to experience. The links in our meditations are supplied by the lithic facets of history, and for this we are grateful to that mighty Mother of Cities to which we belong, and whence there is no retreating. On the south bank of the Thames from Lambeth to Southwark you can retrace the whole range of English history, nay, perhaps the whole story of man.

Exhibition of Soviet Architecture.

THE Society for Cultural Relations with the U.S.S.R. have brought an interesting exhibition of Soviet architecture to this country. This exhibition—which will be shown at the R.I.B.A. from March 3 to 20—is in two sections, the first dealing with Moscow from 1100 till the present day, and the second with the architecture, past and present, of the Soviet Republics.



VIEW FROM A POINT NEAR WATERLOO BRIDGE IN 1848. FROM A SKETCH MADE ON THE SPOT BY "M.D." JULY 1848

VIEW FROM THE SAME POINT IN 1898. BY MR H. W. BREWER

From *The Builder*, January 7, 1893

VIEWS FROM A POINT NEAR WATERLOO BRIDGE

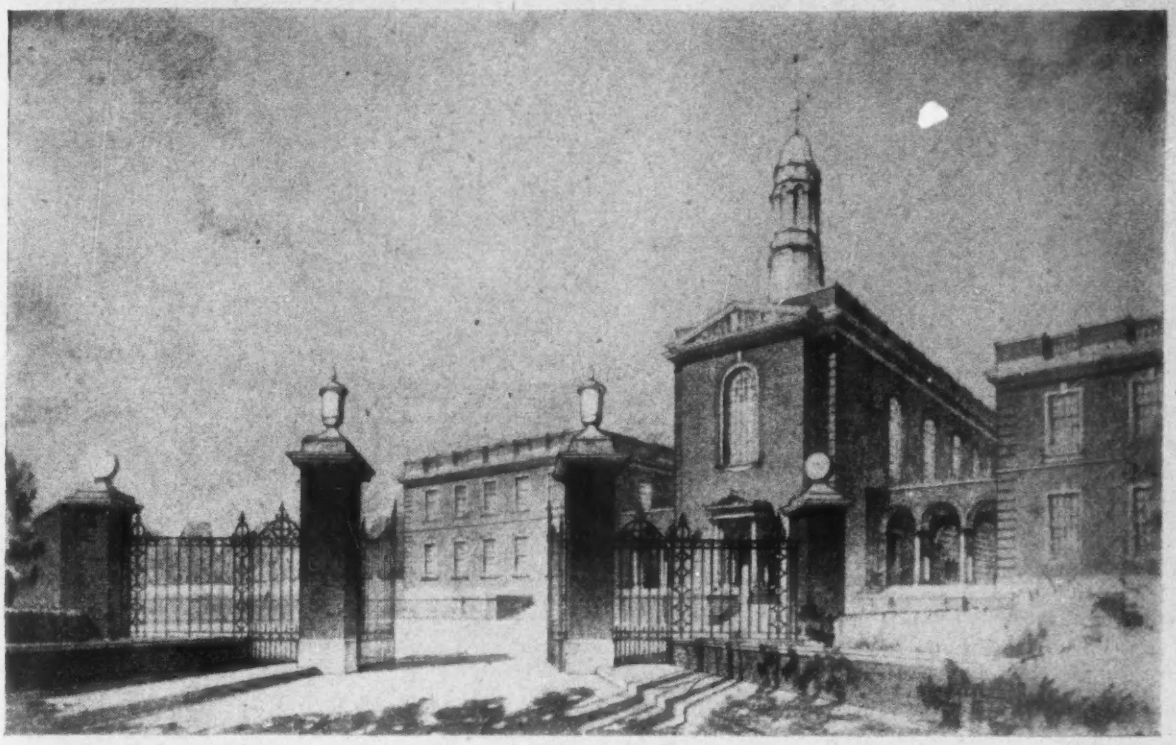
Seen above are two views of Thames-side. The upper drawing, from a watercolour, was made in 1848 by Miss Mary Danvers and offers an interesting comparison with H. W. Brewer's pen-and-ink drawing made half a century later. In the 1848 drawing can be seen the old Blackfriars Bridge and the second Shot Tower on the east side of the Surrey end of Rennie's Waterloo Bridge. To the right is the Hungerford suspension bridge, later taken down and re-erected at Clifton. A noticeable feature of Miss Danvers' drawing are the sailing ships, which so greatly outnumber the steam craft. Brewer's drawing has many points of interest, particularly the artistic licence by which Cleopatra's Needle is "worked" into the drawing and the towers of the Crystal Palace, at Sydenham, which can just be made out over the Surrey end of Charing Cross railway bridge.

The drawing by Arthur Fare, R.W.A., reproduced as a plate in this issue, is made from a point at Shell-Mex House, slightly up river, and shows, among other changes, the new Waterloo Bridge. The second Shot Tower has gone, the commercial buildings along Stamford-street give an air of solidity to the South Bank, and many new buildings have made an appearance, including the Old Bailey, Cables and Wireless building, Faraday House and the Port of London Authority building, while sail is seen no longer on the river.

THAMES SIDE, FROM

THAMES SIDE, FROM SHELL-MEX HOUSE, SHOWING WATERLOO BRIDGE WITH BANKSIDE BEYOND From a penc

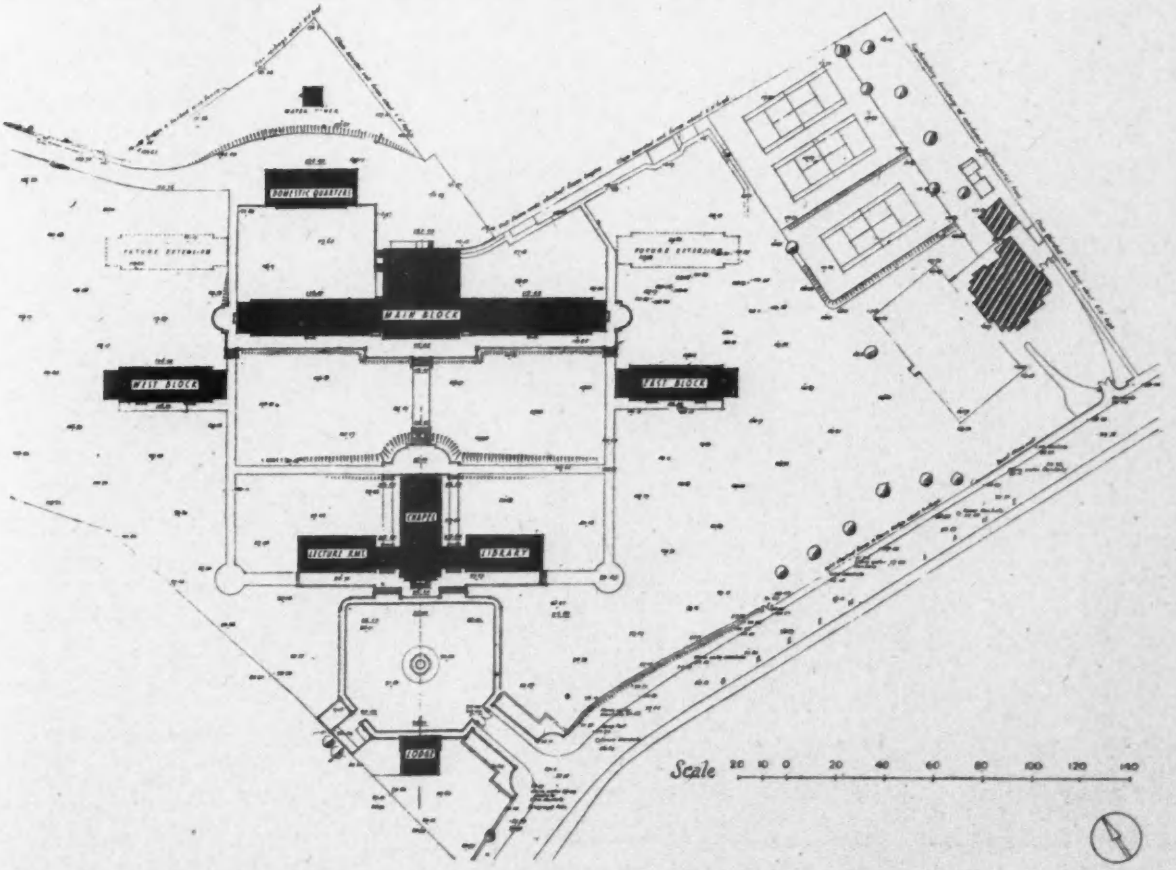
pencil drawing by ARTHUR C. FARE, R.W.A.



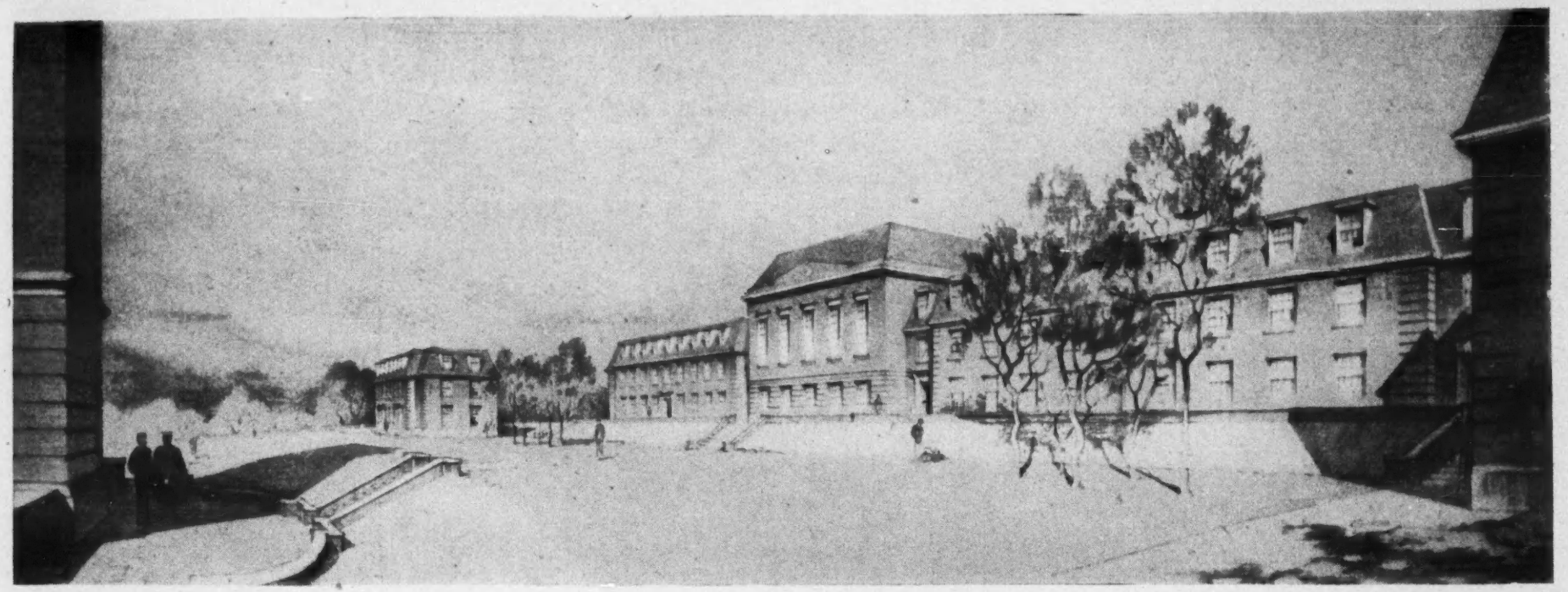
Main Entrance from Green-lane.

Proposed New Buildings, Northwood, Middx., for the LONDON COLLEGE OF DIVINITY

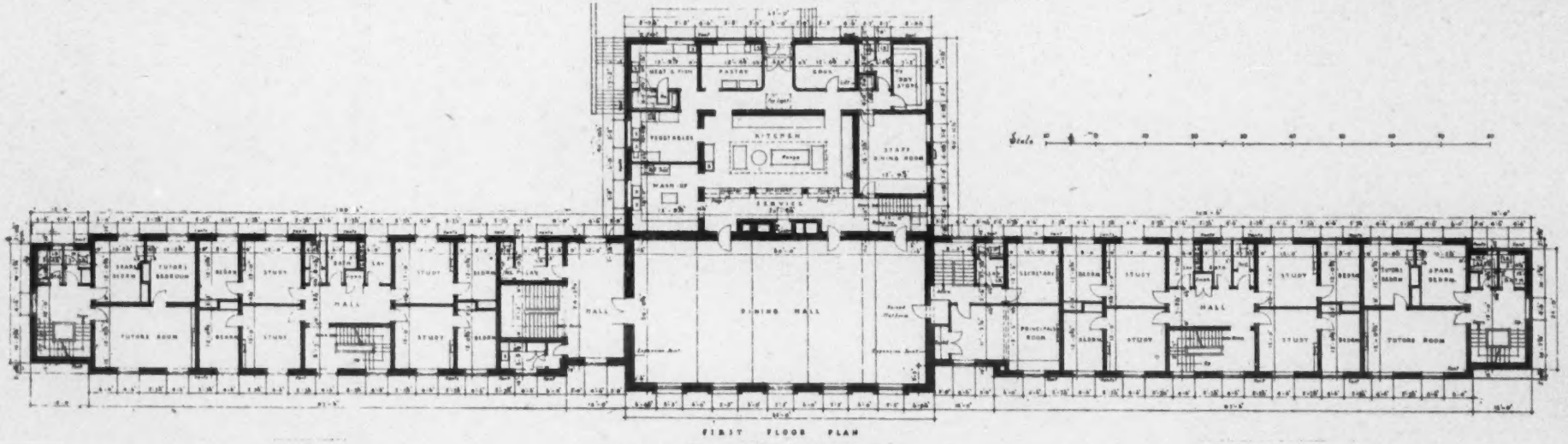
R. FIELDING DODD, BEST AND STEVENS, ARCHITECTS



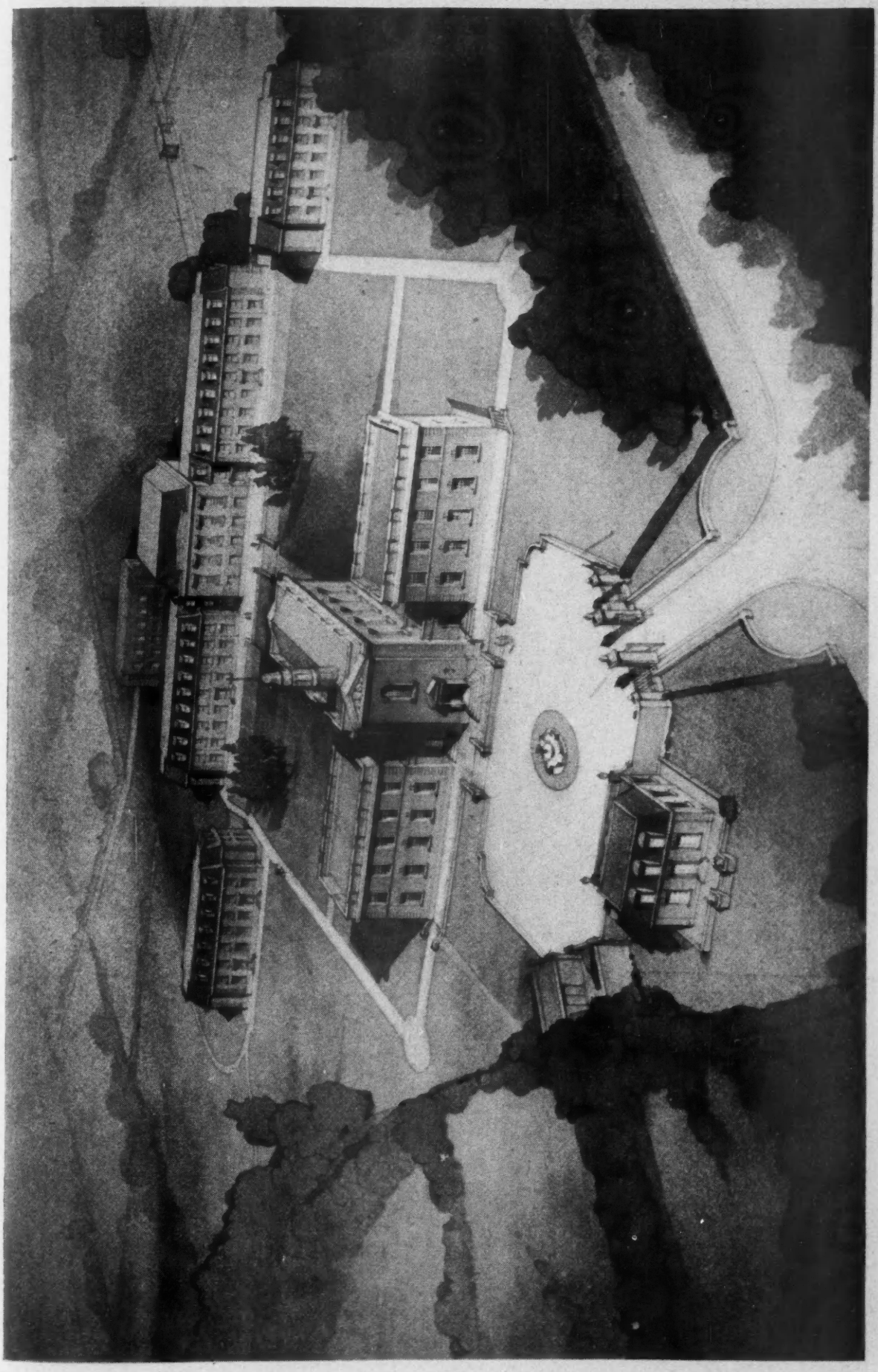
The Site Plan. The hatched building to the right is the Principal's House.



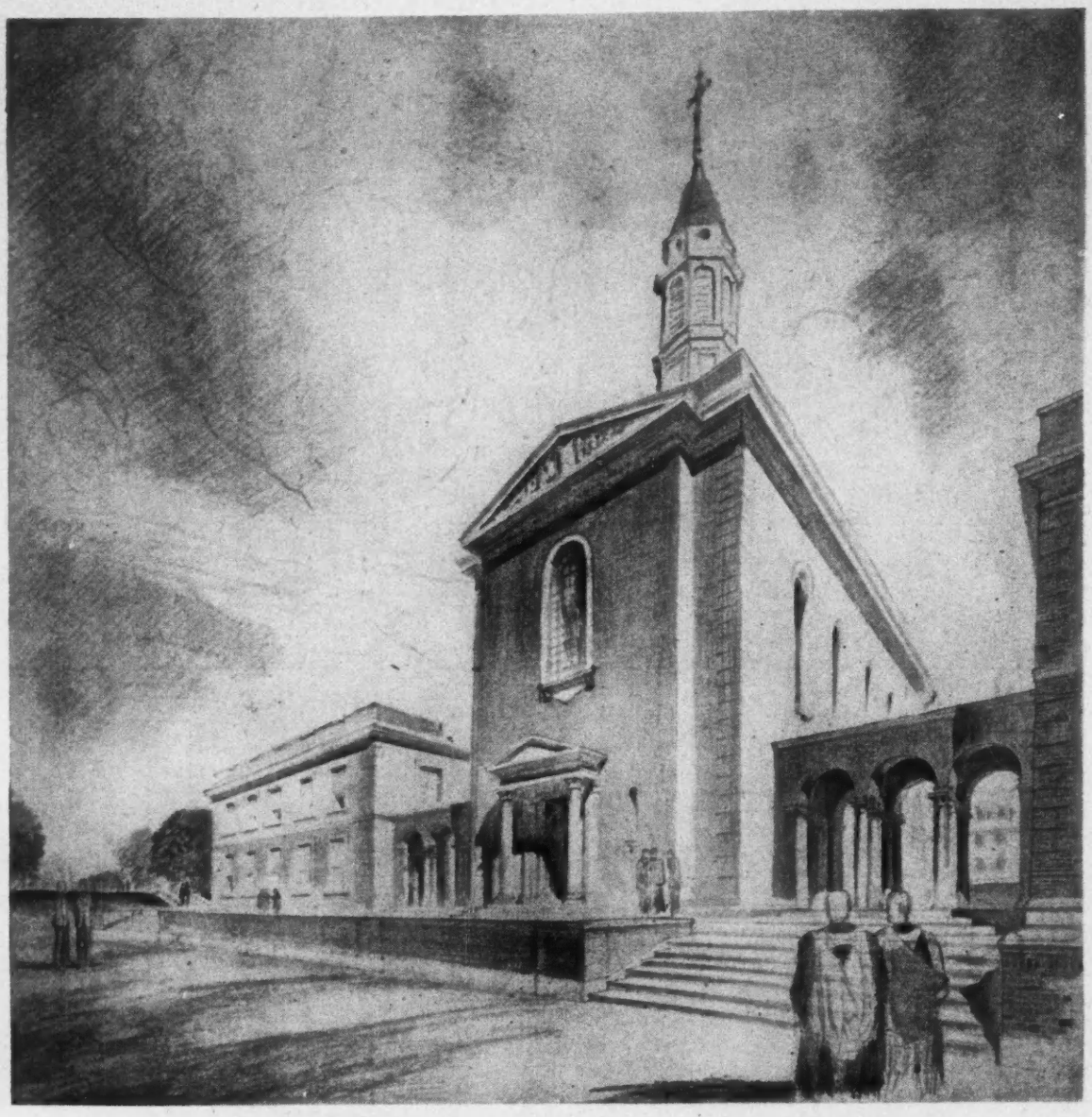
LONDON COLLEGE OF DIVINITY: The Dining Hall Block.



First-floor Plan of Dining Hall Block.

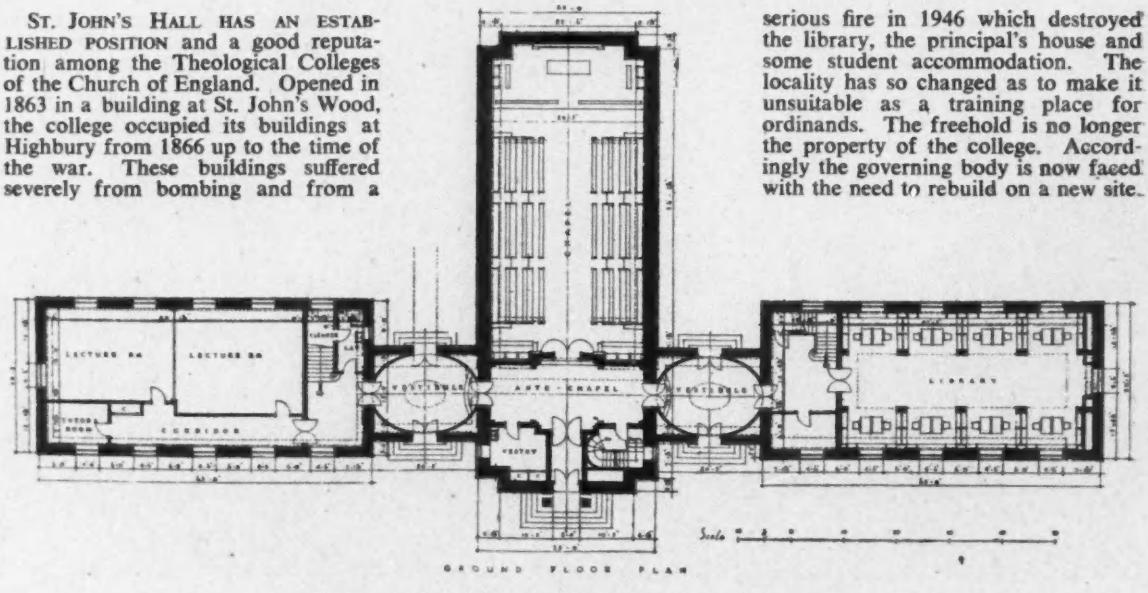


LONDON COLLEGE OF DIVINITY, NORTHWOOD : View from the South.



LONDON COLLEGE OF DIVINITY : The Chapel, showing the final design for the Colonnade linking the Chapel with the Library and Lecture Rooms.

ST. JOHN'S HALL HAS AN ESTABLISHED POSITION and a good reputation among the Theological Colleges of the Church of England. Opened in 1863 in a building at St. John's Wood, the college occupied its buildings at Highbury from 1866 up to the time of the war. These buildings suffered severely from bombing and from a serious fire in 1946 which destroyed the library, the principal's house and some student accommodation. The locality has so changed as to make it unsuitable as a training place for ordinands. The freehold is no longer the property of the college. Accordingly the governing body is now faced with the need to rebuild on a new site.



Chapel, Lecture Rooms and Library : Ground-floor Plan.

LONDON COLLEGE OF DIVINITY, NORTHWOOD, MIDDLESEX

R. FIELDING DODD, BEST AND STEVENS, ARCHITECTS

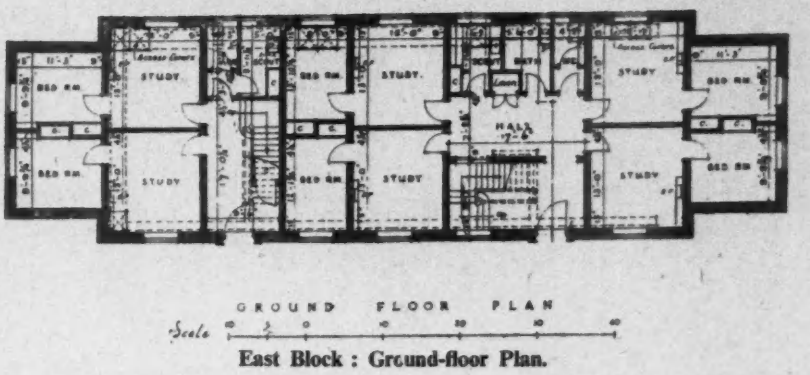
In Green-lane, Northwood, Middlesex, a site of some eleven acres has been bought. There is already a house on the site which is suitable for the principal and a married tutor. There is also sufficient ground for sport and recreation as well as for the buildings. The site has a considerable fall to the south, and this feature has largely dictated the general layout in the architects' scheme. The buildings have been sited in a series of terraces, thus avoiding the excessive amount of groundwork which would have been involved had a traditional quadrangle plan been adopted.

As will be seen from the layout plan, the living blocks have been placed to the rear of the site, while the chapel has been given the predominant position to the main approach from Green-lane. Service access to the rear of the site will be provided from Dene-road. Seventy-five sets of rooms are accommodated in the two wings to the dining-hall and in separate buildings to the east and west of the central block. These rooms are planned on the staircase principle, each staircase serving four sets on each floor. Provision has been made for increasing the accommodation at some future date by a further 36 sets of rooms which would be housed in two further buildings sited to the rear of the main block.

It is proposed that the new chapel should be a memorial chapel to the late Bishop Taylor Smith, Chaplain-General to the Forces in the 1914-18 war. The fact that his home was at Northwood makes the erection there of a chapel to his memory all the more suitable.

The library, which would be linked to the chapel with a colonnade, is to be a memorial to past Johnians, both to those who fell in the two wars and to those who have given their services and their lives for the church throughout the world during the 83 years of the life of the college. The new buildings would be built in brickwork faced with hand-made, sand-faced bricks, while the plinth cappings and cornices would be in stone. The roofs would be tiled, with the exception of those to the dining-hall and chapel, which would be covered in copper sheet.

The drawings reproduced here to illustrate the architects' scheme have been executed by Mr. Lawrence Wright.



East Block : Ground-floor Plan.

The Chapel Interior.

The repaired ceiling of the choir. The main beams and bosses were unharmed, but the subsidiaries and 192 traceried panels were blown out by blast and have been replaced in seasoned English oak.

War Damage Repairs,

MANCHESTER CATHEDRAL

HUBERT WORTHINGTON, A.R.A., CATHEDRAL ARCHITECT

Repairing traceried panels of the damaged choir stalls.

THE FIFTEENTH-CENTURY COLlegiate Church, now Manchester Cathedral, was severely damaged in the air raids on Manchester in December, 1940, when a large bomb exploded a few feet from the east end, destroying the Lady Chapel, the Ely Chapel and two bays of the Derby or Regiment Chapel. At the same time the fine perpendicular oak ceiling of the choir was severely shaken and the panels were blown in. The choir stalls, among the best in England, leaned ominously and were badly blasted, most of the many screens were injured, and the great organ and the Father Smith organ were ruined. The seriousness of the damage to this great church is, perhaps, not generally realised.

Repair is in full swing, and the choir ceiling has been completed. The principals and all the structural timbers of the low-pitched outer roof were found to be in a sound condition and the 13 main beams spanning the choir, the heavy enriched wall plates, the central longitudinal beam and intermediates were undamaged. But though their stoutness withstood the blast, the minor ribs that subdivided the ceiling into 192 traceried panels, together with the panels themselves, were shattered. These have now been repaired in fine seasoned English oak. The work called for the highest craftsmanship, for the

roof tapers on plan, so none of the panels were the same.

The boldly carved bosses that covered the junctions of the main beams suffered little damage, and they are fine examples. On each side of the roof are six oak angels, coming over the centres of the clerestory window arches. The beauty and vigour of their carving were a joy to those who climbed the scaffolding and saw them closely. They hardly suffered at all, nor did the 14 eagles that support the braces of the main beams.

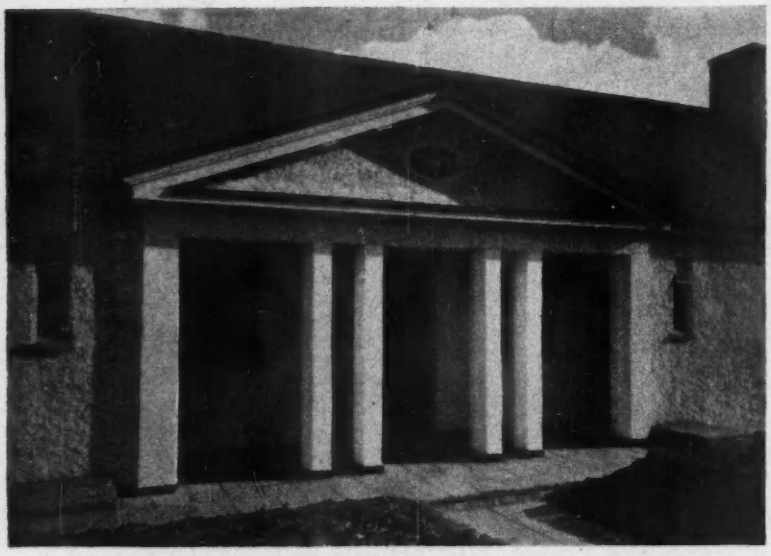
The work on the stalls proceeds apace. Here, again, the bench-ends and misereres escaped unharmed, and the rich canopies suffered only minor injury, though the solid back panels were blown in, with damage to their tracery. It is hoped that these superb examples of Perpendicular carpentry will be repaired so that it will hardly be known how nearly they were destroyed, for they leaned badly in but were propped before they fell, and were providentially preserved from fire.

Repairing the fifteenth-century choir stalls, damaged by blast.

The eighteenth-century wrought-iron altar rails and sanctuary gates were in places twisted completely out of shape, but they have been reconditioned, without any replacement, by the country blacksmith who shoes the horses of the Cheshire Hunt. Under the direction of Mr. Hubert Worthington, A.R.A., the Cathedral Architect, a team of carpenters and carvers is hard at work in the old church itself. They have been led by a most remarkable old man, Mr. James Brown, of Wilmslow, known as the "Oak King," because of his knowledge of English oak, his stock of English oak, and his experience in all matters relating to craftsmanship in oak. Three days before his death, at the age of 86, on November 29 last, he was in the Cathedral, giving directions to the men, with a zeal and enthusiasm that never flagged. He had lived to see the roof completed, and the choir stalls well on the way. In him England has lost one of the greatest of craftsmen in the finest English tradition, and a wise master builder.

MANCHESTER CATHEDRAL: The eighteenth-century sanctuary gate and altar rails, severely bent by blast, have been skilfully repaired by the blacksmith who shoes the horses of the Cheshire Hunt. The damaged work shows the lighter colour.

General View of the Close, looking North.



Exit Portico to Road.

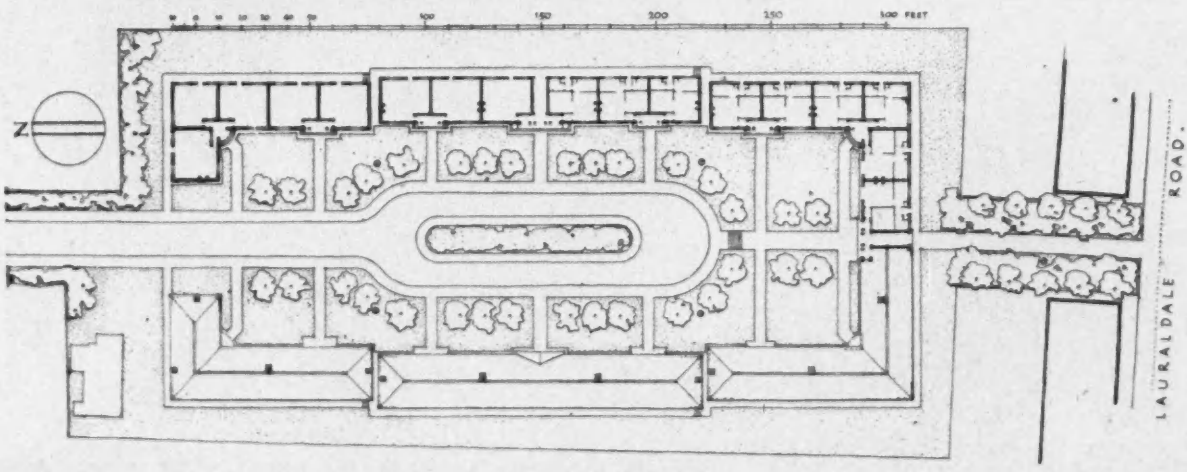
"KEYNES CLOSE," FORTIS GREEN, N.

Old People's Cottages for Hornsey Borough Council

STEWART AND HENDRY, F. & AA.R.I.B.A., in conjunction with the Borough Engineer, J. H. MELVILLE RICHARDS

THE SCHEME ILLUSTRATED COMprises thirty-four single-storey cottages specially designed for old people able and willing to fend for themselves in the way of housekeeping if suitable accommodation and facilities were provided.

Each cottage consists of an entrance lobby, a living-room with a bed-recess opening out of it which can be curtained off during the day, a small but fully equipped kitchen, and a com-



bined bathroom and w.c. Hot water is provided from a back boiler in the living-room fireplace, and the storage cylinder is fitted with an electric immersion heater for summer use. Cooking is by electricity and there are also power points in living-room and kitchen for wireless, electric fire or vacuum cleaner. An electric panel radiator is fitted in the bed-recess.

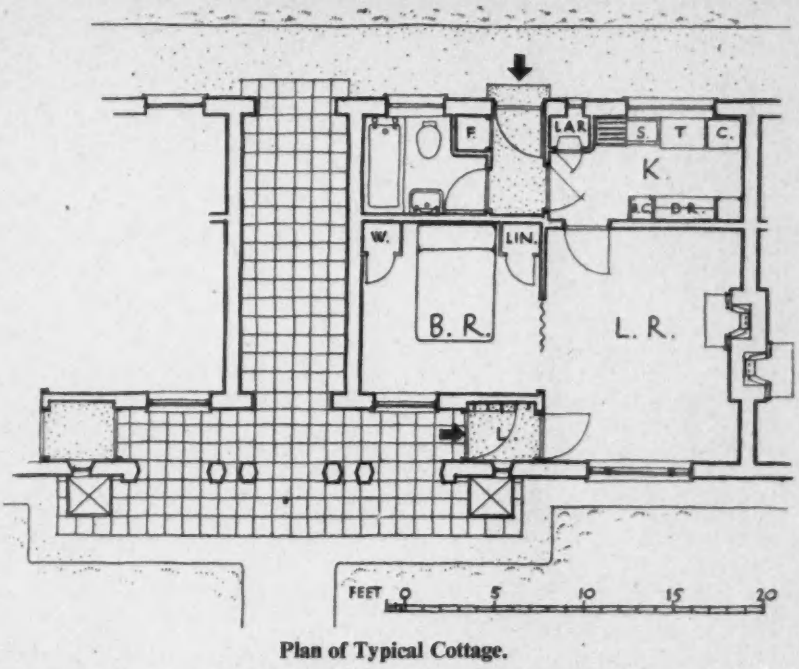
The cottages are of traditional construction with 9-in. brick walls covered externally with spatter-dash and finished a light cream. Roofs are of timber construction covered with felt and hand-made sand-faced tiles. Windows are of standard metal type in wood frames. Boarded floors are provided in living-rooms, bedrooms and entrance lobbies, and brown-coloured asphalt to bathrooms and kitchens, etc. Internally, the walls and ceilings are distempered a light cream colour, and woodwork is finished with glossy paint to match.

With regard to the general layout, the whole of the centre quadrangle will be treated uniformly with grass lawns, flowering trees and flower beds, all of which will be tended by the Parks Departments of the Hornsey Borough Council. The small gardens at the back of the cottages will be cultivated by the tenants.

The scheme was originally sponsored by the Hornsey Housing Trust, a local Housing Association, but it was eventually taken over by and carried out by the Hornsey Borough Council as part of its post-war housing programme. It has been named Keynes Close because of the personal interest shown in the undertaking by Alderman Mrs. A. V. Hill, a sister of the late Lord Keynes, and a leading spirit in the field of old people's housing. The builders were Messrs. Edward H. Jackson, Ltd., of Hornsey.

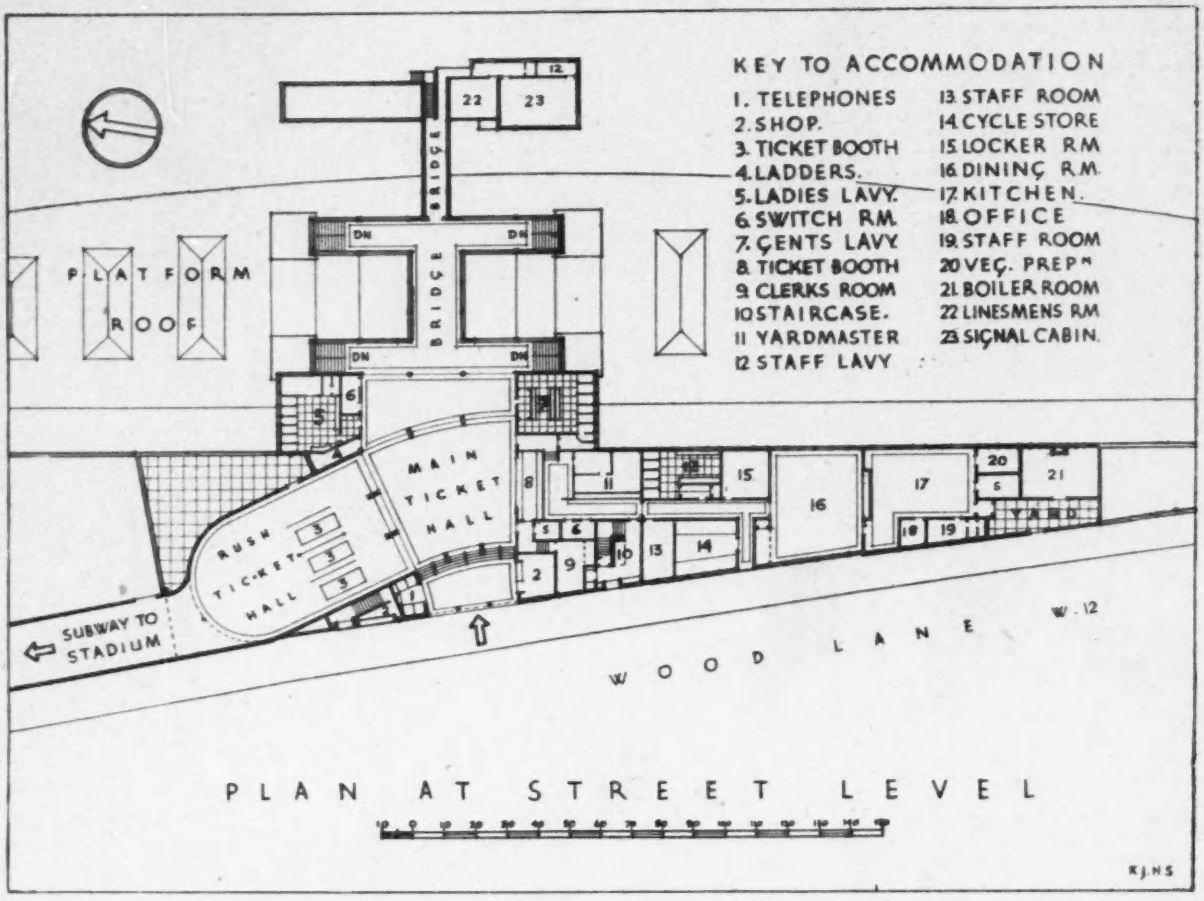
The following were sub-contractors and suppliers: Roof tiling, Roberts Adlard and Co., Ltd.; asphalt floors, Val de Travers Asphalte Co., Ltd.; kitchen fitments, D. Burkle and Son, Ltd.; fireplaces, Nicholls and Clarke, Ltd.; sanitary fittings, Nicholls and Clarke, Ltd.; ironmongery, Taylor Pearce and Co.; electrical work, Hornsey Borough Electrical Department; and metal windows, James Couper and Co., Ltd.

View of Angle Block.



Plan of Typical Cottage.

"KEYNES CLOSE," FORTIS GREEN, N.: General View from the North.



WHITE CITY STATION

THE ARCHITECT'S PROBLEM HERE was to design a ticket hall which could deal adequately with the normal traffic, and also cope with the huge crowds which use this station when greyhound racing or athletic meetings are held at the Stadium.

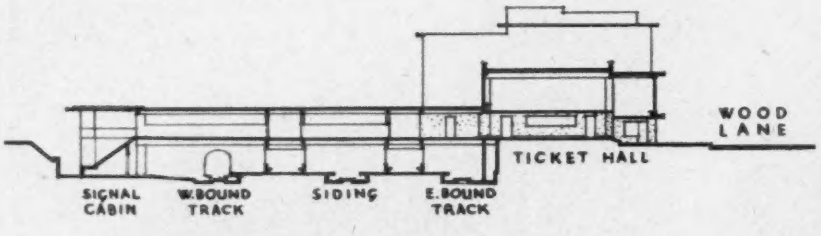
The hall, therefore, resolved itself into two parts: the first, for normal traffic with a wall-type ticket office, and the second for rush-hour traffic leading direct by subway access to the Stadium. This second hall is provided with a battery of ticket booths, and can be closed off from the main ticket hall in non-rush hours by collapsible gates. As train crews are changed at this point, a yardmaster's office and canteen were required, the opportunity being taken to provide for a staff institute on the first and second floors.

CONSTRUCTION.—Steel frame construction is used throughout, and floors and roofs are of precast concrete slabs. Facing bricks are silver grey and buff multis; the platform surfaces are finished with asphalt and the floors to bridge and ticket halls with 12 in. by 12 in. white concrete tiles. The walls of the ticket halls will be tiled up to door height in 18 in. by 12 in. faience slabs, with facing bricks above, and concrete ceilings will be left exposed and decorated. Windows are of metal casement sections. Fluorescent lighting will be installed on platforms, staircases, bridge, and in the ticket halls.

The first stage of the building programme was completed when the station was opened for traffic on November 23 last, and included the platforms (unroofed), staircases, bridge and a temporary ticket hall, staff rooms and a public lavatory on the site of the Stadium ticket hall. The second stage will see the completion of the platform roofs, the main and rush-hour ticket halls, permanent staff rooms, permanent public lavatories, the yardmaster's office, the canteen, and a portion of the institute on the first floor.

The third stage will complete the institute. The model illustrates this stage, but provision is made in the foundations and stanchions for the extension of the superstructure over the ticket halls. The model was constructed by Mr. Seymour.

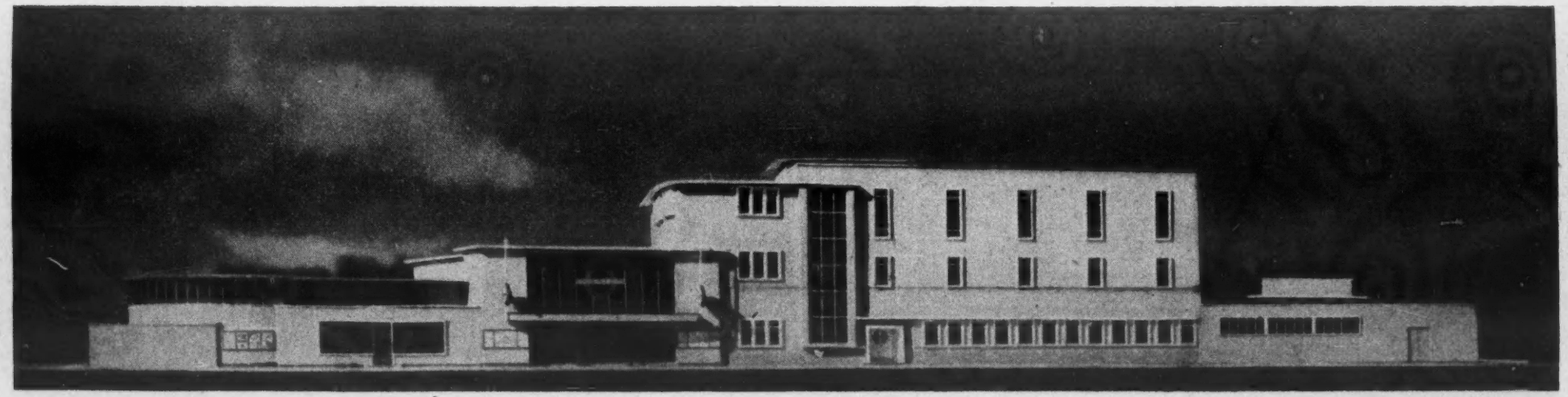
The scheme has been prepared by Mr. A. D. McGill, A.R.I.B.A., Section Architect, assisted by Mr. K. J. H. Seymour, A.R.I.B.A., under the general superintendence of the Board's Architect, Mr. Thomas Bilbow, F.R.I.B.A.



SECTION THROUGH BRIDGE & TICKET HALL

A. D. McGILL, A.R.I.B.A., SECTION ARCHITECT, WITH K. J. H. SEYMOUR, A.R.I.B.A.

THOMAS BILBOW, F.R.I.B.A., ARCHITECT TO L.P.T.B.

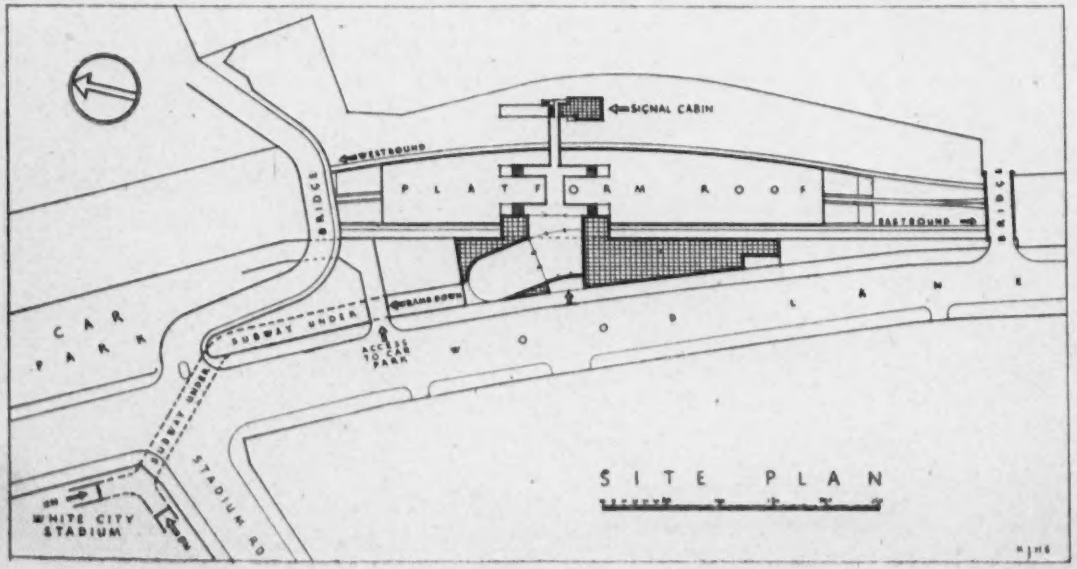


The Station, from a model.

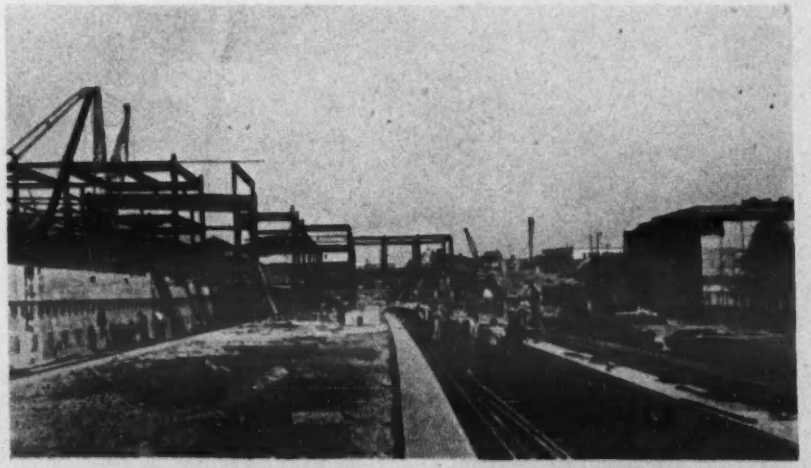
WHITE CITY STATION

A. D. McGILL, A.R.I.B.A., SECTION ARCHITECT, WITH
K. J. H. SEYMOUR, A.R.I.B.A.

THOMAS BILBOW, F.R.I.B.A., ARCHITECT TO L.P.T.B.



The Site Plan.



View Northward, showing New Signal Cabin on right.

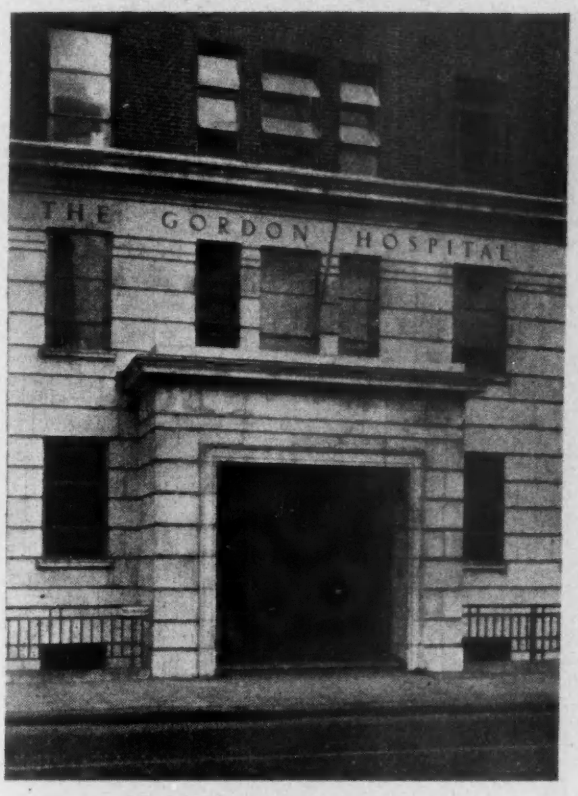
The Completed Building. Below: the first section, with old building.

THE GORDON HOSPITAL, VAUXHALL BRIDGE ROAD

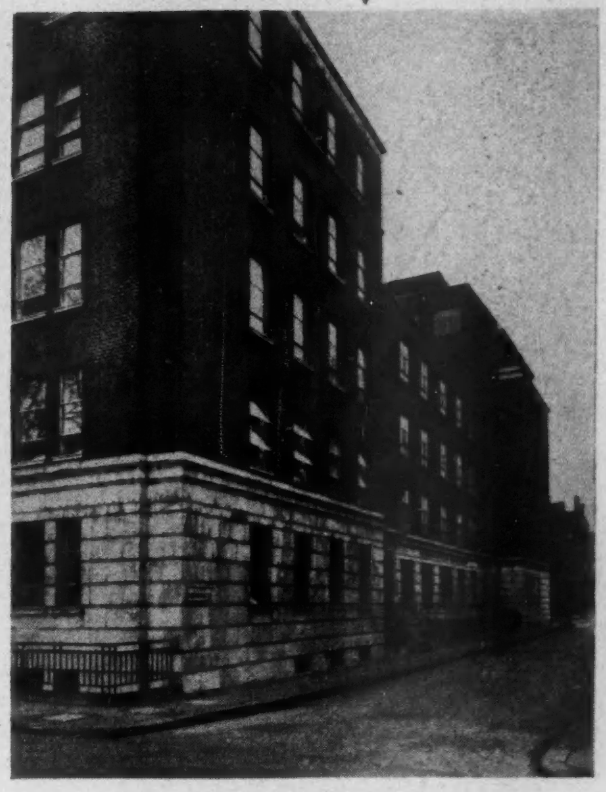
ALNER W. HALL, M.C., F.R.I.B.A. (YOUNG AND HALL), ARCHITECT

THE GORDON HOSPITAL, VAUXHALL BRIDGE-ROAD, which was formally opened on December 2 last by H.R.H. The Duchess of Kent, has had an interesting life. The original hospital, known as the Western Hospital for Fistula and Diseases of the Rectum, was started in a small house, No. 278, Vauxhall Bridge-road, in June, 1884, and contained seven beds. In 1886 the name of the hospital was changed to the Gordon Hospital, and as the work done was being so successful it was decided, in 1894, to purchase the next-door house and an extension of ten beds was made available. Successive alterations and rebuilding over the next thirty years were carried out, culminating in the provision in 1930, on land in Bloomburg-street, of an out-patients' department, a new operating theatre and sterilising room, and a new ward unit.

The hospital throughout those days was blessed by having two well-known men at the head of its affairs, Mr. John A. Dewar, the President, and Mr. Reginald Corfield, the Chairman, both intensely keen on its development and modernisation. After having made a study of some of the more modern hospital buildings then being erected, especially the Middlesex

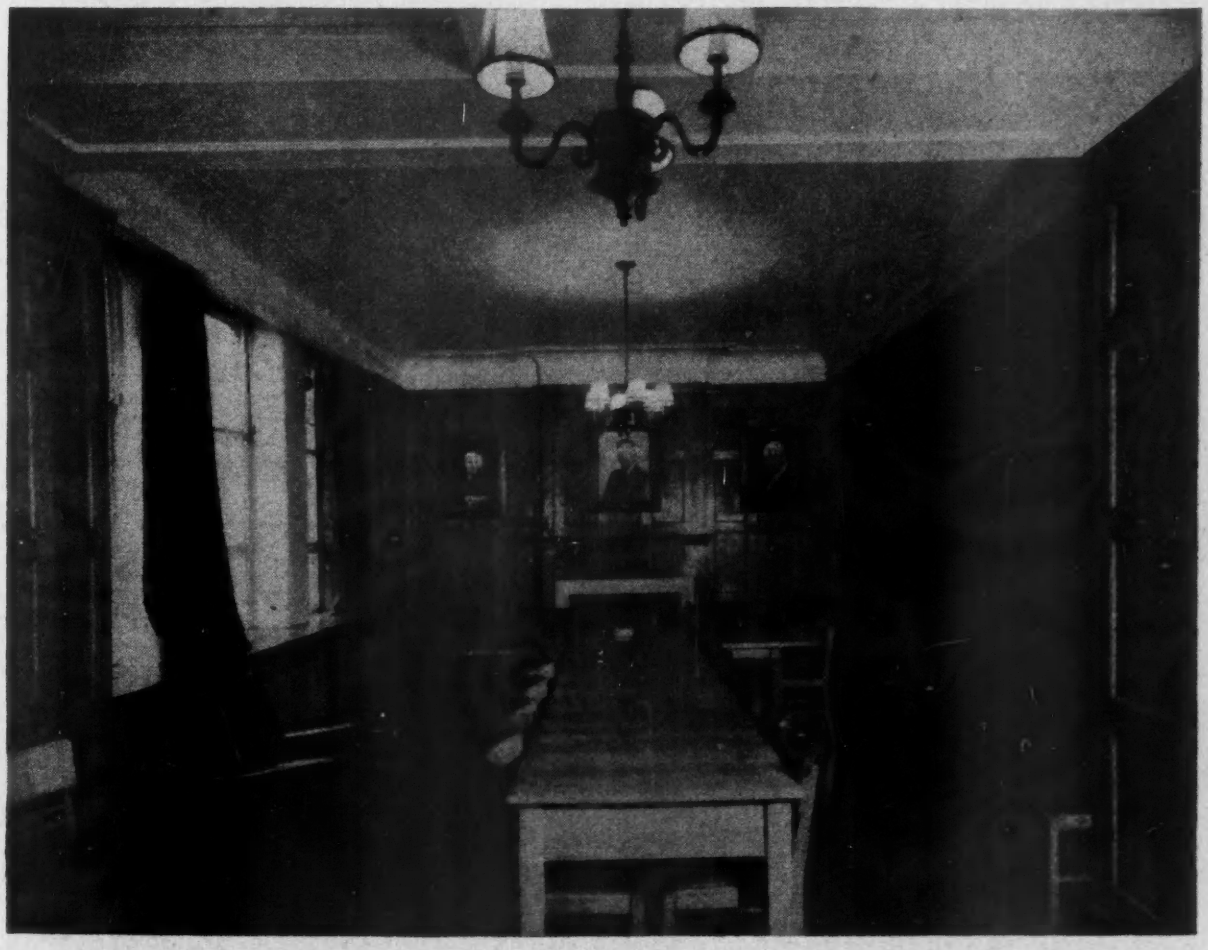


Detail of Main Entrance.

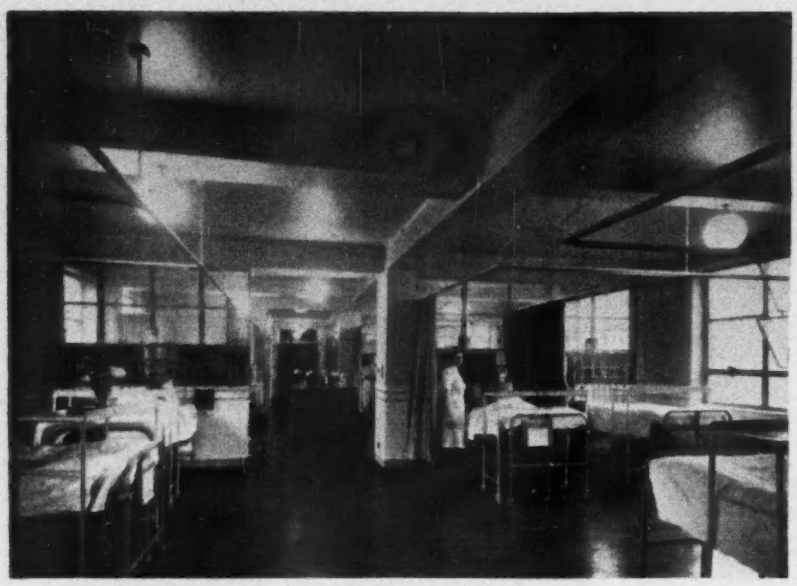


The Bloomburg-street Front.

Hospital, the Committee appointed Messrs. Young and Hall as their architects for the complete rebuilding scheme, and under the guidance of the late Mr. Ernest Miles (then senior surgeon) and in collaboration with the architects a schedule of requirements was drawn up on the basis of a 100-bed hospital, to be



The Board Room.



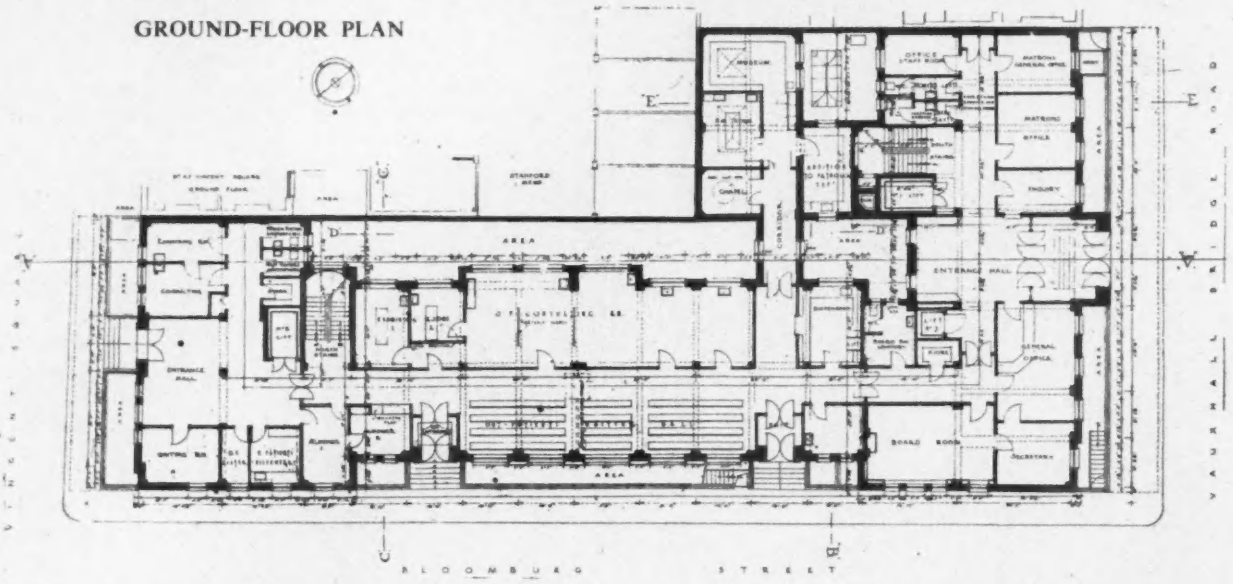
A Ward.

carried out in stages. It was clear that the problem of building in this manner was going to make difficulties, but by the help given by the general contractors, Messrs. Sims and Russell, Ltd., and with help of the hospital authorities, all difficulties were overcome.

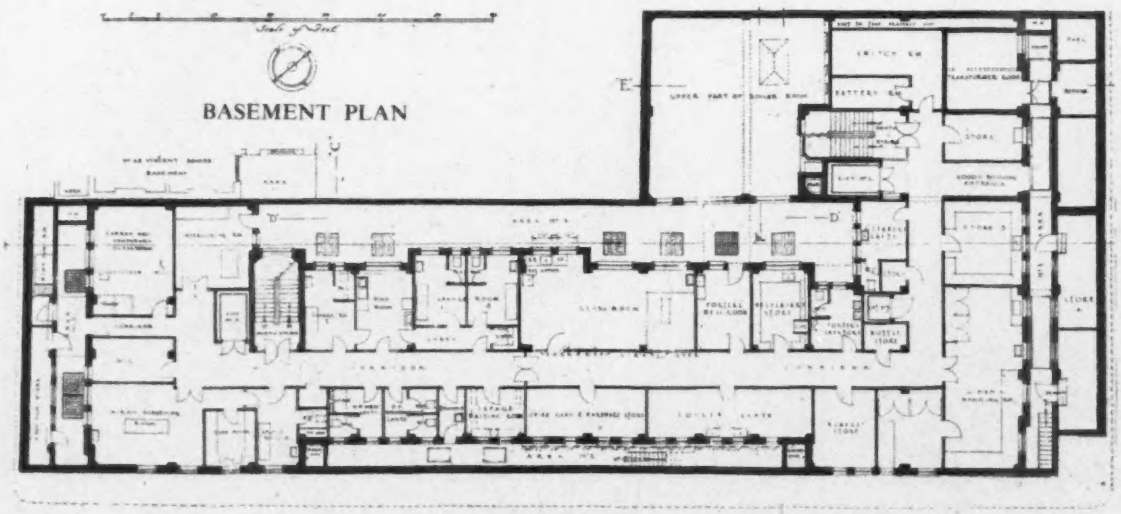
The rebuilding started from the Vincent-square end, and a portion in Vauxhall Bridge-road, and went back along Bloomburg-street up to the line of the oldest part of the existing hospital. This made it possible to build the central boiler house, out-patients' department, and the major portion of the ward units and the two operating theatres on the Vincent-square front. Towards the end of 1937 it was possible to demolish the old hospital buildings and begin the second stage by rebuilding the administrative and nursing staff quarters on the Vauxhall Bridge-road, and gradually connecting up to the rest of the rebuilt hospital on all floors. By the middle of 1939 the rebuilding scheme was complete, and the hospital, containing 102 beds, was taken over by the Committee and fully occupied. On the outbreak of war the whole of the buildings were taken over by the War Department and run as a hostel for troops, being administered by the W.V.S. Owing to the difficulties and delays, it was nearly two years after the end of the war before the architects could report that the building was ready for occupation. During the waiting period the work in organising the return of patients, nurses and medical staff fell to the lot of Mr. R. E. Lawson, the hospital's very able Secretary, and with much hard work this task was completed.

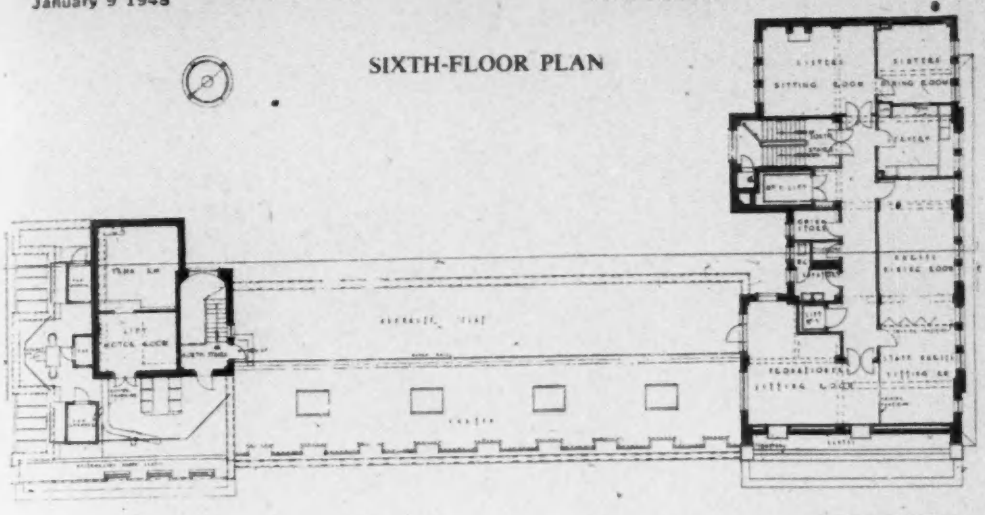
It will be noted that the site is quite small, but at the same time contains a mass of detailed planning. The design and construction were complicated by the restriction on angles of light across Bloomburg-street. Floor

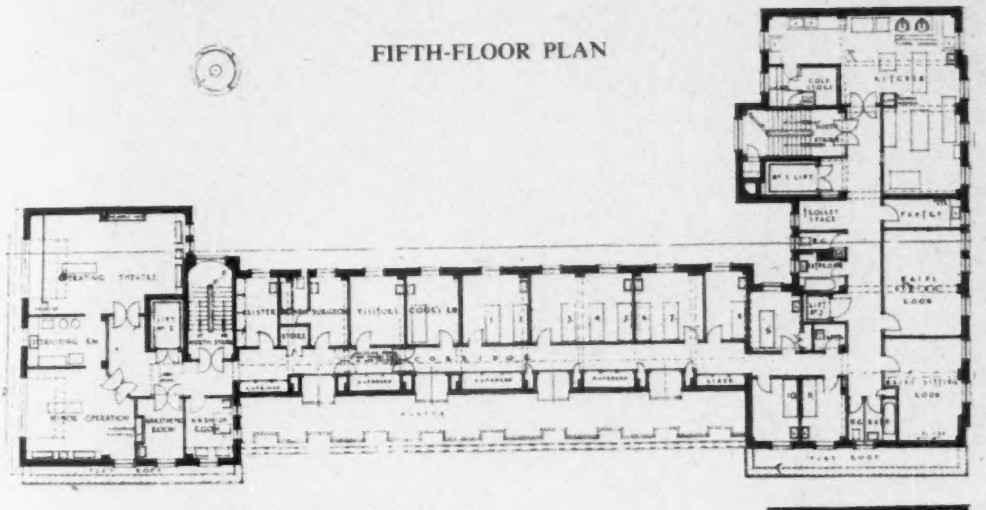
GROUND-FLOOR PLAN

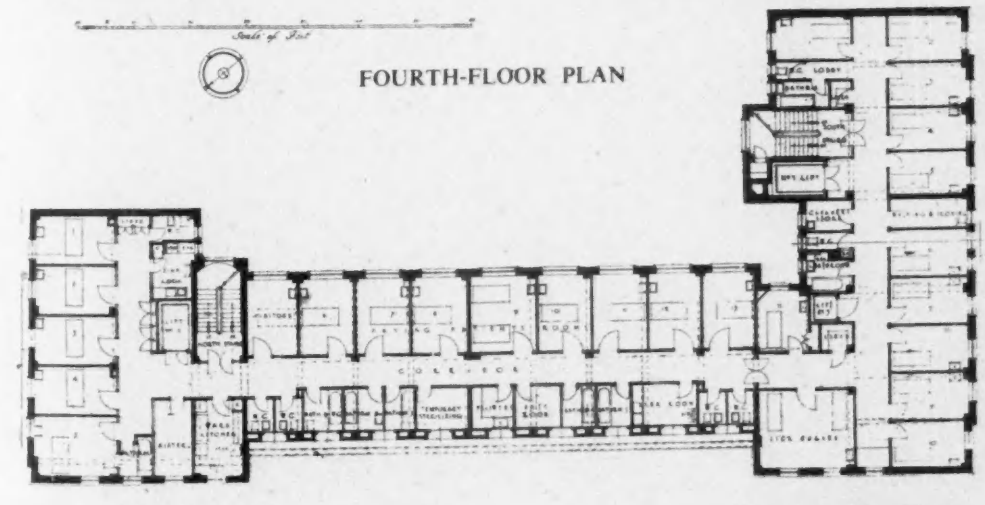


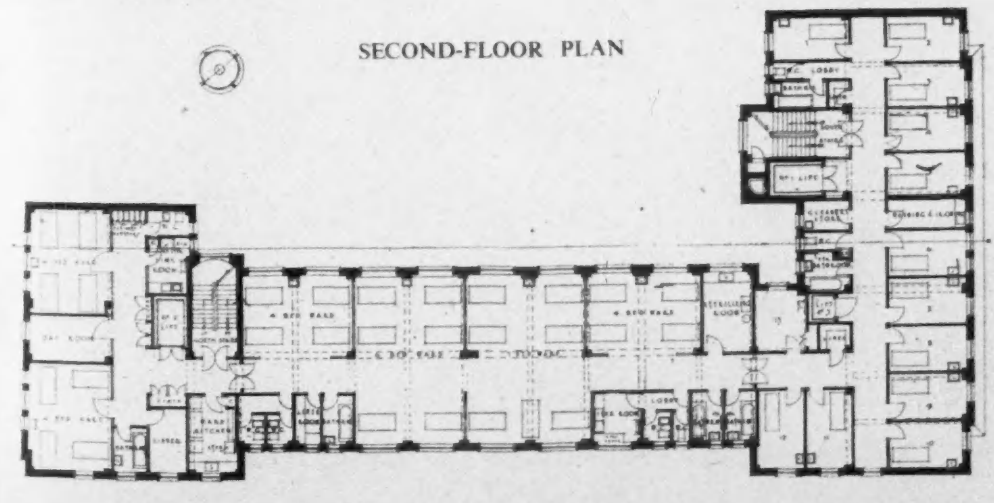
BASEMENT PLAN











space was much restricted in the upper floors in consequence, but every inch of space was used for cupboards, etc., where no actual rooms could be provided. It is not proposed to describe the various floors in detail, as it is thought that the plans explain themselves and the general intentions, but it is worth noting that the layout was very largely determined by the space available for rebuilding under the first stage. The two houses in Vauxhall Bridge-road provided the space for the central boiler house and part of the administrative block, and the portion of the site from Vincent-square backwards gave space for the private patients' entrance, wards and theatres, leaving the east, west and central portion for the main general wards. These, as the plans show, were designed on the alcove principle, and perhaps the biggest problem was to provide the necessary space for the extensive sanitary offices so necessary to serve the particular type of case dealt with, and to satisfy the requirements of the medical and nursing staffs.

The buildings are fire-resisting and steel-framed. The constructional work was carried out in collaboration with Dr. Oscar Faber, O.B.E., the consulting engineer. The general contractors were Messrs. Sims and Russell, of Bloomburg-street, and the following is a list of the specialist sub-contractors who carried out work:—

Electric food lift, George Johnson, Ltd.; painting, London Spray Painting Co.; terrazzo floors, Diespeker and Co., Ltd.; joinery, doors, board-room and other panelling, J. P. White and Sons, Ltd.; electric passenger and goods lifts, Waygood Otis, Ltd.; strip and wood block flooring, Acme Flooring and Paving Co., Ltd.; light metal work, Brown and Tawse, Ltd.; wall and floor tiling, Carter and Co., Ltd.; electrical work, Girdlestone and Co.; plumbing, drainage and sanitary fittings, Dent and Hellyer, Ltd.; metal windows, Crittall Manufacturing Co., Ltd.; heating, hot-water, boiler plant, ventilating and sterilising plants and kitchen apparatus, James Slater and Co., Ltd.; reconstructed stone, Impervious Stone Co., Ltd.; steelwork and erection, Colville Construction Co.; asphalt roofs and retaining wall, General Asphalt Co., Ltd.; and special ventilating system in X-ray and dark-room, Brooks Air and Heating Systems, Ltd.

Mr. H. H. Connybeare was the quantity surveyor, who also carried through the complicated negotiations with the War Department on the reinstatement claim.

Nurses' Dining Room.

THE GORDON HOSPITAL, VAUXHALL BRIDGE ROAD : An Operating Theatre.

PROSPECTS FOR 1948

(*continued from page* 36.)

dustry, who are charged with the task of devising ways and means of securing increased output on the site. The housing figures for recent months have, however, given us some encouragement. What of 1948? We are in the throes of an economic crisis which makes the outlook uncertain. But we begin the year with some advantages. Our Production Officers, to whose good work I pay tribute, have gained in experience and their value is becoming increasingly recognised by all concerned; for the first time, owing partly at any rate to the pioneer work of the Production Council, systems of incentives are being introduced into the industry with the approval of both employers and operatives; and, thanks to the recent wages agreement, of which payment by results forms part, 1948 should be a year of real co-operation.

On the whole, therefore, I am hopeful, despite the outlook, that the industry will be able to show that it can, whilst maintaining a high standard of craftsmanship, build more speedily in 1948 than in 1947. I know that the National Joint Production Council, the Regional Joint Committees and the Production Officers will do whatever they can to help, and I wish them a successful New Year.

G. W. BUCHANAN.

From the President, Federation of Associations of Specialists and Sub-Contractors.

IN issuing a message on the occasion of the New Year, it is easy to yield to the temptation, which accords with the season, to over-emphasise the brighter aspects of the outlook and to turn away from the more unwelcome parts of the picture. I want to avoid falling into either of these errors and to express my good wishes on a more realistic basis.

The last year has brought with it the end of many expectations that were built on too slender foundations. Now we are recovering from our disappointment; it is being realised that this may be a very good thing. We have laboured since the end of the war under a shortage of materials which has caused delay and inflated costs; we have come to recognise that that position was largely due to the endeavour to put in hand more work than the industry could at any one time handle. Circumstances have now forced a review of the building programme, and there is hope that in the coming year a proper balance will re-establish itself between work, materials and labour.

At the same time, specialists must feel anxiety at the concentration on housing which is foreshadowed, at the expense of industrial building. It has been urged that housing is the pre-requisite of increased production and national recovery, since without it full mobility of labour and enlarged agricultural and mining production cannot be secured. This argument would be more convincing if the housing work at present in hand or under contract to be constructed bore more geographical relation to the apparent needs of industry, agriculture and the mines. Then is to be foreseen, unless steps are taken in good time, the preservation of certain trades within the industry at the expense of others the efficiency and even the existence of which may be imperilled. The present crisis, we hope, will pass, and the nation will once again call on the industry to tackle a large and varied programme. Unless there is preserved throughout the lean years a nucleus of highly skilled personnel for re-expansion within each trade, the result will be delay and confusion rather than an orderly and efficient re-expansion of the industry.

I am convinced, therefore, that such building work as may be permitted during the next few years should be controlled selectively, so that the programme contains some work for each trade within the industry. This will serve to maintain a balanced building force, even though reduced in size, from which an orderly re-expansion can be developed when necessary.

To all members of the Associations which form part of the Federation of which I have the honour to be President, to the Editor and readers of *The Builder*, as well as to all other sections of the industry, I wish a Happy and Prosperous New Year. J. L. MUSGRAVE, M.INST.C.E.

NEW YEAR HONOURS

RECOGNITION FOR TOWN PLANNERS

SEVERAL town planners figure in the New Year Honours List, the twenty-third list of the reign, which was announced on January 1. Also noteworthy are the awards to the Chairman (Mr. Forsdike) and vice-Chairman (Mr. J. W. Stephenson) of the National Joint Council for the Building Industry, which mark long and excellent service to the industry. The list included the following names well known in the architectural profession and the building industry, and we offer our cordial congratulations:—

BARON.—Sir Valentine George Crittall.

KNIGHTS BACHELOR.—James Gow Mann, Director of the Wallace Collection. George Lionel Pepler, C.B., for services to town and country planning. John Walker Stephenson, C.B.E., J.P., general secretary, Plumbers', Glaziers' and Domestic Engineers' Union, vice-Chairman, National Joint Council, and President of the National Federation of Building Trades Operatives.

K.C.B.—Sir Thomas Herbert Sheepshanks, K.B.E., C.B., Permanent Secretary, Ministry of Town and Country Planning.

C.I.E.—R. E. M. Wheeler, Director-General of Archæology, India.

C.B.—E. J. R. Edwards, Under-Secretary, Ministry of Works. G. M. McNaughton, Chief Engineer, Ministry of Health.

C.B.E.—W. H. Forsdike, lately President of the National Federation of Building Trades Employers and Chairman of the National Joint Council. P. H. Jowett, Principal of the Royal College of Art. J. F. Linney, Chairman, R.A.F. Pilots' and Crews' Fund Committee of the Auctioneers' and Estate Agents' Institute. F. E. Sargant, deputy chief valuer, Board of Inland Revenue. H. W. Spencer, O.B.E., Assistant Secretary, Ministry of Works. Miss Margerie Venables Taylor, for services to archæology. C. T. Wheeler, R.A., President of the Royal Society of British Sculptors.

O.B.E.—J. A. Cope-Christie, architect, S. Rhodesia. C. E. F. Everett, chairman of the Regional Joint Committee for the Building Industry, Eastern Region. J. Greaves, principal architect, Ministry of Health. J. A. Hamlyn, assistant chief surveyor, Ministry of Works. C. Jackson, chief materials officer, Ministry of Works. Ald. T. Johnson, J.P., divisional organiser. Plumbers', Glaziers' and Domestic Engineers' Union, Nottingham. Mr. A. L. Peyman, member of the M.O.W. Building Apprenticeship and Training Council. B. Spence, architect to the "Enterprise Scotland, 1947" Exhibition. J. M. Theobald, senior partner, Gardiner and Theobald, London, quantity surveyors. F. Longstreth Thompson, County Planning Adviser to the Essex County Council. H. R. Wardill, regional planning officer, Ministry of Town and Country Planning. W. S. A. Winter, principal, Ministry of Works.

M.B.E.—A. H. Bell, senior experimental officer, National Physical Laboratory, D.S.I.R. E. S. Blake, secretary (Eastern Region) National Federation of Building Trades Operatives. B. F. Brueton, senior planning officer, Bristol Corporation. G. W. Bundock, chief clerk of works, Cambridge, Ministry of Works.

COMING EVENTS

Friday, January 9

BIRMINGHAM AND FIVE COUNTIES ARCHITECTURAL ASSOCIATION.—Mr. R. F. Lloyd Jones, M.A., M.I.C.E., on "Airports." Royal Birmingham Society of Artists' Galleries New Street, Birmingham. 6.15 p.m.

Monday, January 12

LONDON MASTER BUILDERS' ASSOCIATION (Southern Area).—Luncheon followed by A.G.M. Speaker, Mr. D. E. Woodbine Parish. Zeeta's Restaurant, Croydon. 1 p.m.

Tuesday, January 13

ROYAL INSTITUTE OF BRITISH ARCHITECTS.—Award of Prizes and Studentships. Criticism by Mr. Ralph Tubbs, A.R.I.B.A., on work submitted, R.I.B.A., 66, Portland Place, W.1. 6 p.m.

THE HOUSING CENTRE. "PLANNING AN OLD AND A NEW TOWN—WORCESTER AND CRAWLEY."—Speaker, Mr. A. Minoprio, M.A., B.Arch., F.R.I.B.A., A.M.T.P.I. 13, Suffolk Street, London, S.W.1. 1.15 p.m.

LONDON MASTER BUILDERS' ASSOCIATION (North-Eastern Area).—A.G.M., Cranbrook Hall, Cranbrook Road, Ilford. 1 p.m.

INSTITUTION OF CIVIL ENGINEERS.—Talk and film on "Swedish Bridge Construction and the Sando Bridge," by Sven Klingberg. Institution of Civil Engineers, Great George Street, S.W.1. 5.30 p.m.

TOWN AND COUNTRY PLANNING ASSOCIATION, "Planning Development Abroad—Poland," by Mr. R. Nicholas, B.Sc., M.I.C.E., 28, King Street, W.C. 1.15 p.m.

Wednesday, January 14

LONDON MASTER BUILDERS' ASSOCIATION (South-Western Area).—Luncheon followed by A.G.M. Speaker, Mr. T. Webster, A.M.I.C.E., Wimbledon Hill Hotel, Wimbledon. 1 p.m.

THE ROYAL SANITARY INSTITUTE.—Papers on "Improved Plumbing Installation," by H. C. Harris; and "Water Supply Problems in Dwelling Houses, with particular reference to burst pipes," by H. W. Walters. 2.30 p.m.

NOTES AND NEWS

W. R. Lethaby.

THE recent talk on W. R. Lethaby by J. Brandon Jones given on the B.B.C. Third Programme was a stimulating tribute to a great master of architecture. Mr. Brandon Jones raised the point which has invariably provided argument among architects—the value of a traditional training as opposed to a modern one. The fallacy of working to win the Rome Scholarship, etc., was pointed out, and the Beaux Arts method was criticised. This argument will doubtless continue for many a day, but one thing is certain—a basic classical training, however stringent it be, provides the student with a very valuable foundation for anything he may be called upon to design as an architect. A classical training does not in the least prevent the student from exercising his talents in other fields; on the contrary, his chances of becoming a good contemporary architect are immeasurably increased by this classical training. However, complete classical training is obviously a mistake; three years would seem a reasonable period before the latest developments are taught.

Lethaby, for all his great sense of progress, was the first to advocate that the past must be taken into account and not merely considered to be something dead and gone. Therein lay a great part of his genius as a teacher and architect. Scholarship is more essential to-day in architecture than ever before, and Lethaby's books should be republished and included in the reading curriculum of every architectural school.

The British Museum Again.

THE importance of the visual arts as a witness of history is once again stressed in the exhibition in the King Edward VII Gallery at the British Museum, where a visual "anthology" of small treasures is to be seen.

This exhibition includes some vessels of the Shang-yin dynasty, a ninth-century Viking head-post from a ship and an arresting Mayan figure of a maize god.

Like the other recent exhibitions in these galleries of the magnificent collection of drawings and engravings of European masters, this show maintains a fine standard and the King Edward VII Gallery thereby strengthens its reputation as a venue for art exhibitions.

Education for Industry and Commerce.

THE report of the working party, set up in September last by Mr. George Tomlinson, the Minister of Education, to report on the establishment of a National Council of Technology, has been published by H.M. Stationery Office, price 2d.

The working party recommend that steps should be taken with as little delay as possible to establish a National Council on Education for Industry and Commerce to advise the Minister on the national policy necessary for the full development of education in this sphere, stating: "this time, as never before, there is a real need for well-trained craftsmen, technicians, technologists, scientists, research workers and managers. Such training calls for careful and concerted planning, and it is evident that a national body is needed to give informed advice in order that development may proceed along sound lines."

It is suggested that the functions of the council should include:—the planning of new developments, including national colleges; the expansion of existing facilities; the improvement of accommodation and equipment; the development of research in colleges; the methods of examination and certification of studies; the provision of scholarship and awards; the preparation of reports; and co-ordination of the work of the Regional Advisory Councils and Regional Academic Boards which have already been set up.

It should also maintain contact with industry and commerce and appropriate professional bodies and arrange consultation with the University Grants Committee and other appropriate bodies on matters relating to education of university standard.

The working party also recommend that the proposed council should be composed of representatives of the local education authorities, university institutions, teachers, employers and employees, in each of the ten regions together with a number of persons nominated by the Minister to ensure a proper balance of the various interests. It would be necessary for the Council to appoint a Standing Committee to deal with detailed problems. For matters requiring specialised and expert consideration, Advisory Committees should be appointed to report to the Standing Committee.

Old People's Homes.

IT is good to read of the increasing interest in the problem of housing and care of old people. Before the war little money was devoted to providing the old people with a reasonable standard of living, and, excluding a few isolated examples, precious little interest has been shown by architects in this subject. The report on the subject published a year ago by the Nuffield Foundation laid bare the facts and left no doubts in people's minds that here was a subject worthy of immediate attention.

This gives architects a great chance to enlarge their sphere of social service. It would seem, moreover, that here is a fine chance for an architectural competition, for in obtaining the ideas of the best architects on this problem the architectural profession would be rendering an invaluable service to the social life of this country.

A special article on this subject, by Dr. Trevor H. Howell, M.R.C.P. Ed., appears on page 36.

Oxford Planning Proposals.

AS a result of proposals made by Mr. Thomas Sharp, Oxford's planning consultant, the Great Western Railway and the London Midland and Scottish Railway, the City Council has now decided to combine Oxford's two railway stations and improve the approaches.

The proposals provide for six through platform lines and two outside running loops, with two through goods lines, as well as bays. There will also be a bus centre with a covered way into the station, which will adjoin.

The coal sidings will be resited farther north, and the goods station farther south.

Later stage plans include a new street running in a south-easterly curve from the east end of the railway bridge towards the cattle market.

York as Architectural Centre.

AS a first step towards making York the centre of the north for architectural studies the Academic Development Committee of the York Civic Trust and the York University Foundation Planning Committee are planning annual summer schools of architecture. The first summer school is to start next year, and it is hoped to establish eventually a permanent school of architecture at York.

Christmas Greetings.

WE acknowledge greetings cards from Mr. Sydney Tatchell, C.B.E., and Lt.-Col. S. W. Cranfield, F.R.I.B.A., and reciprocate their kind messages.

"Design for a West End Clubhouse."

MR. R. E. ENTHOVEN, F.R.I.B.A., R.I.B.A. Librarian, points out that the late Beresford Pite's "Design for a West End Clubhouse," shown at the recent A.A. Centenary Exhibition, was not a reproduction (as stated in our notice on December 26), but the original drawing, lent from the R.I.B.A. Prints and Drawings collection. We are glad to make this acknowledgment.

Professional Announcements.

DR. CHARLES HOLDEN, MR. LIONEL PEARSON and MR. P. W. ADAMS, FF.R.I.B.A., announce that they have taken into partnership Mr. Laurence Angus, M.A., A.R.I.B.A., who has been an associate partner since 1925. Mr. W. A. Guttridge, Dip.Arch. (Leeds), A.R.I.B.A., and Mr. K. H. Urquhart, who have been with the firm since 1935 and 1931 respectively, have now also become partners on their return after war service. The firm will continue to practise under the title of Adams, Holden and Pearson.

MR. CECIL HOWITT, D.S.O., F.R.I.B.A., announces that from January 1 he has taken into partnership Mr. Philip Gerrard, A.R.I.B.A., A.M.T.P.I., and Mr. Frederick E. Woolley, A.R.I.B.A., both of whom have been with him for the past 17 years. The name of the firm will be Cecil Howitt and Partners.

THE partnership between MR. ERNO GOLDFINGER, D.P.L.G., and MR. COLIN PENN, A.R.I.B.A., architects and town planning consultants, has been dissolved by mutual consent. MR. GOLDFINGER will continue to practise from 69, Piccadilly, W.1 (Regent 5210 and 5657), and Mr. Penn will practise from 62, Parliament Hill, N.W.3 (Hampstead 3416).

MESSRS. LAURENCE M. GOTCH AND PARTNERS, architects and surveyors, announce that their new Lewes address is 10, Albion-street, Lewes, Sussex. (Tel.: Lewes 850.)

FROM "THE BUILDER" OF 1848

Saturday, January 8, 1848.

HOW TO BECOME A JUDGE OF PICTURES.—"Sposin' its pictures that's on the carpet, wait till you hear the name of the painter. If its Rubens, or any o' them old boys, praise, for its agin the law to doubt them; but if its a new man, and the company ain't most especial judges, criticise. A leetle out o' keeping, says you, he don't use his grays enough nor glaze down well; that shadder wants depth; general effect is good, though parts ain't; those eyebrows are heavy enough for stucco, says you, and other unmeaning terms like those. It will pass, I tell you; your opinion will be thought great. Them that judged the cartoons at Westminster Hall knew plaguy little more nor that. But if there is a portrait of the lady of the house hangin' up, or its at all like enough to make it out, stop—gaze on it—walk back—close your fingers like a spy-glass, and look through 'em amazed like—enchanted—chained to the spot. Then utter, unconscious like, 'That's a most beautiful pictur, by heavens! That's a speakin' portrait. It's well painted, too; but whoever the artist is, he is an unprincipled man.' 'Good gracious!' she'll say, 'how so?' ''Cause, madam, he has not done you justice.'"—*Sam Slick*.

ARCHITECTS' REGISTRATION COUNCIL

63rd Quarterly Meeting

THE 63rd ordinary general meeting of the Architects' Registration Council of the United Kingdom was held on Friday, December 12, at 66, Portland-place, W.1, Mr. Sydney Tatchell C.B.E., F.R.I.B.A., being in the chair.

MR. VINCENT BURR presenting the Report of the Admissions Committee said that since the circulation of the report certain information had been given him with regard to one of the rejections, and as this case was one which should be further considered the name of the applicant had been withdrawn from the list in order that the Admissions Committee might further consider the matter. This necessitated amendment of figures, which amendment the Council noted.

On the motion of Mr. Vincent Burr, seconded by Mr. A. R. Howard, it was resolved that the report be approved and adopted, and that accordingly: (i) The 69 applicants recommended for admission be admitted to the Register, and (ii) the 30 applicants recommended for rejection have not proved to the satisfaction of the Council that they are entitled to registration.

MR. G. W. JACKSON asked whether there were any appeals outstanding and the Registrar replied that there were about nine, with possibly two or three more to be dealt with; it should be possible to complete the appeals in one or two meetings.

Architectural Education.

The Report of the Board of Architectural Education was, in the absence of Mr. Knapp-Fisher (Chairman of the Board) submitted by MR. DARCY BRADDELL, it being resolved that the recommendations of the Board in regard to Examiners for the Maintenance Scholarships be approved.

The Panel of Examiners re-appointed is as follows:—General knowledge, Mr. F. F. S. Bryson; mathematics, Mr. F. E. Drury; essays, Mr. F. S. Orme; drawing test and design test, Mr. W. H. Ansell. Chairman of the Panel of Examiners, Mr. Darcy Braddell.

"Unattached" Architects.

In the Report of the Finance and General Purposes Committee, with regard to "Unattached" architects and representation on the Council, it was noted that the Voters' List for the election of representatives of the "Unattached" Architects for the year 1948/49 had been prepared by the Registrar, in accordance with Regulation 44, and contained 3,569 names, entitling the "Unattached" architects to eight representatives on the Council. Nomination forms inviting the nomination of candidates for election had been issued.

In connection with suggestions made by Mr. S. J. Rowe in a letter relating to the "Unattached" Architects' election, referred to the Committee by Council on October 17, the Registrar had advised that amendments proposed would have no practical effect on the election and the Committee recommended that no action be taken. The recommendation was agreed by the Council.

Mr. Rowe's letter, which follows, was attached to the Report of the Committee.

REPRESENTATION OF UNATTACHED ARCHITECTS ON THE REGISTRATION COUNCIL

I shall be obliged if you will kindly consider the observations set out in this letter and, to what is in my opinion, the existing unfair method of electing representatives.

The present method consists of the sending out by the Registrar of a list of names of representatives on Form A who are already holding office and who are, usually, willing to serve again if elected. Each registered person is asked to fill in his nomination form and as the only names in front of him are on the list supplied he has no other alternative but to nominate these persons. These gentlemen, therefore, obtain without effort or expense, a great number of nominations.

Last year, after discussing the matter with some architect friends, I agreed to let my name go forward as a candidate if nominated. It cost me approximately £1 10s. 0d. in postages, etc., and I had a considerable amount of correspondence, to obtain seven nominations.

When the voting papers arrive, all the present members of the Council have large numbers of nominations obtained without the slightest effort or expense as against my seven nominations obtained after great effort and expense. Members usually vote for those persons having the largest number of nominations and it would appear almost impossible at the present time to be elected on the Council if one is not a serving member. This is wrong in principle, and certainly not democratic, and should in my opinion be brought to the attention of the Privy Council. For a person to be nominated by at least six unattached architects would appear to be reasonable but the present method of obtaining the necessary nominations is, in my opinion, entirely wrong.

I think I am also correct in stating that there is not one unattached architect on the present Council, or previous Councils, who lives North of London—London and the South of London are represented but the rest of the country is not, and it would appear it will remain like this under the present system.

In your 1946 Annual Report you state that to avoid the expense of unnecessary elections occasioned by candidatures lacking substantial support, a representative must be nominated by not less than six unattached architects.

Under the present arrangement, how on earth can anyone obtain substantial support if he is not a serving member on the Council?

To overcome the difficulty, I would suggest for your consideration the following points:—

(1) The names on the nomination papers should be the present members, if they wish to serve, plus the names of any candidates who have obtained the required number of nominations (namely six) for the previous year, if they have beforehand, when asked by the Registrar, agreed to their names going forward as candidates.

You might say this is not correct, but I can assure you that, in my opinion, it is just as correct as the present unsatisfactory method.

An alternative is that *every* candidate must obtain his own six nominations before his name is included on the voting paper.

A second alternative would be that if a candidate has satisfied the Registrar and the Council that he has the required number of nominations, however obtained, required by law, *i.e.*, six, that the number of nominations be *not* shown on the voting paper.

The fact that a candidate's name is on the voting paper will be sufficient to show that his nomination is in order.

(2) The fact that a person is already a serving member of the Council should not be indicated on the voting paper. (If this is insisted upon, then I say that the attendances at Council meetings should also be indicated, *on the voting paper.*)

(3) The district in which a candidate lives should be shown on the voting paper.

History of A.R.C.U.K.

Regarding a proposal made by Mr. Jackson that steps should be taken to prepare a history of the Architects' Registration Council—to be published in 1952 on the completion of 21 years since the passing of the 1931 Act—the cost to be defrayed by voluntary subscription, COL. V. H. SEYMER said it was too near the events to write any history at all; no reliable history was ever written until the protagonists were safely buried!

MR. JACKSON: It was to avoid that burial and to get the true facts that I wanted to start while we had all our bodies alive to tell us.

MR. DARCY BRADDELL: As one present at the very first meeting of this Council and one who has attended pretty well all the others, may I support Lt.-Col. Seymer's theories on the writing of history. Not only that, but Mr. Jackson has said that the early days of this Council would prove interesting; I fear that if they were published they would prove far too interesting, and I think it would be much better to have these facts, which are no doubt recorded in various places, published after most of the parties are dead and gone, because I cannot help thinking, knowing what I do, that if they were published now a certain amount of, shall we say, dirty linen would be washed in public, and it would not be to the advantage of this Council. Therefore I do not agree with the recommendation that the proposal be favourably considered. It is an excellent idea; the history must be written, but, like all good histories, it must be written long after the event when a proper perspective can be taken and those events which are really outstanding be recorded while the little unpleasantnesses are gently glossed over.

After MR. R. B. CRAZE had associated himself with Colonel Seymer's and Mr. Darcy Braddell's remarks and THE CHAIRMAN had suggested that the matter be considered in ten years' time, MR. J. H. MELVILLE RICHARDS said: It is one thing to prepare a history; another thing to publish it. It might be a good idea to start preparing it, especially after what has been said!

MR. JACKSON: It seems to me that what Mr. Braddell has said is a reason for getting matters down on paper as soon as possible. I have in mind the examination question, and so on, and I believe all that sort of thing should be recorded in proper form so that it does tell future generations the principles under which this Council was built up; the ideas on the examination question; why, if you like (I would not hide anything), the Incorporated Association examinations were not accepted.

MR. CRAZE: May I suggest that there is no real need to do what Mr. Jackson suggests, because—I stand to be corrected—all these matters are matters of record; they are in the archives of the various statutory bodies concerned.

THE CHAIRMAN: There seems to be a general feeling on the Council, if I interpret rightly, that the matter should be deferred for the time. ("Hear, hear.") We leave it in that way, to be talked over. I think we are entitled to say that we are grateful to Mr. Jackson for raising this point, because I am sure many of us would glean some amusement, if not interest, from the recorded history of the Registration Council.

The Report as a whole was adopted.

OBITUARY

Henry George Malcolm Laing, L.R.I.B.A.

It is with regret that we record the death, on January 3, of Mr. Henry George Malcolm Laing, L.R.I.B.A., of 75, Palace-road, Tulse Hill, S.W.2.

Mr. Laing was responsible for a considerable amount of domestic work and business premises in London, particularly at Norwood, Peckham, Bayswater, Herne Hill and Loughborough Junction, and in the Home Counties. He was also the architect for crematoriums at Pontypridd and Hendon and for additions to crematoriums at Norwood and Shanghai. He was elected Licentiate of the R.I.B.A. in 1910.

Francis Arnold Winder.

We regret to record the death of Mr. Francis Arnold Winder, a well-known Sheffield architect and surveyor, of Rushley Cottage, Rushley-road, Dore. Mr. Winder was a partner in the firm of Edmund Winder and Co., St. Peter's-close, Hartshead. At one time he was an active member of the Pennine Club and was fond of exploring the Castleton caves. He was a widower without family.

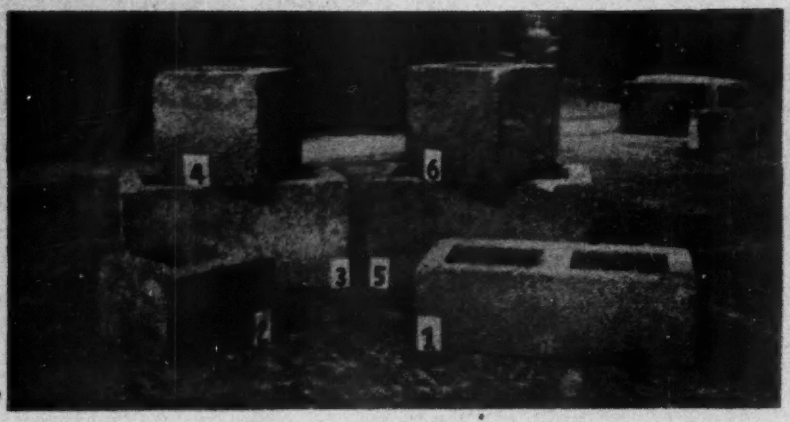


Fig. 2.—Blocks suitable for use with mortar-tray. (Key : Nos. 1 and 2—full and half 18 by 9 by 6 in. lightweight concrete; Nos. 3 and 4—Ditto, but 9 in. deep; Nos. 5 and 6—18 by 9 by 9 in. dense concrete.)

Fig. 3.—The traditional method.

A MORTAR-SPREADING TRAY FOR USE WITH CERTAIN CONCRETE BLOCKS

By W. Kinniburgh and G. McTaggart

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IN the course of recent experiments on blocklaying carried out by the Building Research Station, studies were made of the laying of hollow concrete blocks of the 18 in. by 9 in. by 6 in. and 18 in. by 9 in. by 9 in. types (Fig. 2).

The mortar bed for this type of block is laid on the outer and inner flanges only (Fig. 3), the cross-webs being kept free of mortar to avoid as far as possible a capillary path for moisture through the wall and to give some of the advantages of a cavity wall construction. The width of the bedding surfaces is about 1¼ in., and it was noted that bricklayers found difficulty in applying the mortar to these narrow surfaces, which in turn led to the dropping of considerable quantities of mortar into the cavities of the wall. Thus the laying of these blocks involves in greater or less degree some change in the bricklayer's technique if a good standard of workmanship is to be maintained.

It was felt that some device which would assist the bricklayer in carrying out this operation would be valuable, and with this idea in mind the mortar-tray described in this report was designed.

The Mortar-Tray.

The mortar-tray* (Fig. 1) is of all-metal welded construction and consists essentially of a cover plate for the cavity and channels into which the mortar is spread. The handles are continued below the tray to form lugs which fit over the sides of the block and thereby act as guides for the tray. The dimensions of the tray are shown in Fig. 12.

A short series of tests was carried out to investigate the following points :—

(1) Performance of the tray, including

* Patent applied for.

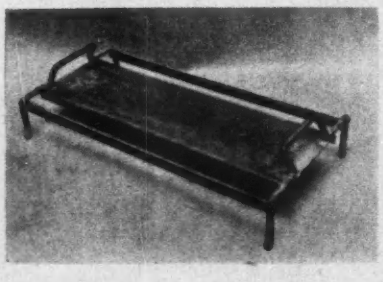

Fig. 1.—The mortar-tray.

TABLE 1. PROGRAMME OF TESTS.

Test No.	*Bricklayer.*	*Previous experience of blocks.*	*Wall No.*	*Method.*	*Mortar mix used.*
1	A	Considerable	1	normal	1 : 4 lime and sand
			2	tray	,, ,,
2	A	Considerable	3	normal	1 : 1 : 6 cement, lime and sand
			4	tray	,, ,, ,, ,,
3	B	Limited	5	normal	,, ,, ,, ,,
			6	tray	,, ,, ,, ,,
4	C	None	7	normal	,, ,, ,, ,,
			8	tray	,, ,, ,, ,,

TABLE 2. RESULTS OF TESTS.

1	2	3	4	5	6	7	8		9
Test No.	*Bricklayer.*	*Wall No.*	*Method.*	*Time in Normal minutes.*	*Quantity of mortar used in construction (cu. ft.).*	*Saving in mortar used per cent.*	*Quantity of mortar in cavity.*		*Approx. depth of mortar in a wall 19 ft. high (inches).*
							lb.	*cu. ft.*	
1	A	1	normal	87	not recorded	—	25	0.28	2.9
		2	tray	90	not recorded	—	1	0.011	0.1
2	A	3	normal	88	2.14	—	3.5	0.039	0.4
		4	tray	94	2.04	4.7	1	0.011	0.1
3	B	5	normal	122	2.87	—	12	0.134	1.4
		6	tray	104	2.20	23.4	2.1	0.024	0.24
4	C	7	normal	not recorded	2.96	—	21	0.24	2.4
		8	tray	not recorded	2.35	20.7	3	0.034	0.3

TABLE 3. TIMES FOR VARIOUS ELEMENTS.

Test No.	*Bricklayer.*	*Method*	*Wall No.*	*Element Times in Normal Minutes.*				*Total.*
				Spreading. S	*Blocklaying. B*	*Measuring. M*	*Miscellaneous. X*	
1	A	normal	1	31	44.5	6.6	4.9	87
		tray	2	40	44.0	5.2	0.8	90
2	A	normal	3	31.5	49.5	5.5	1.3	87.8
		tray	4	37	50.3	6.3	0.0	93.6
3	B	normal	5	48.2	54.0	16.2	3.5	121.9
		tray	6	40.3	48.7	14.3	1.1	104.4

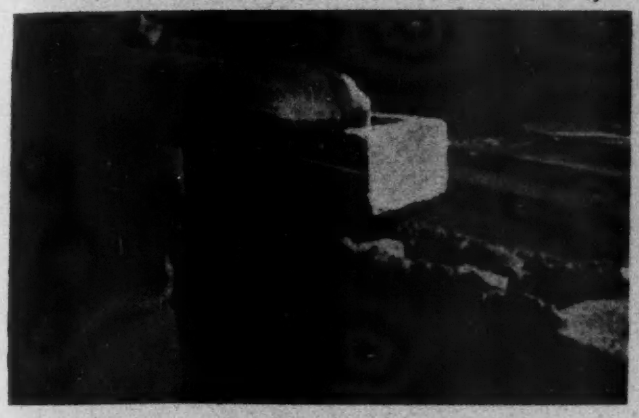

Fig. 4.—Traditional method of laying mortar-bed.

Fig. 5.—Method of laying mortar-bed using tray.

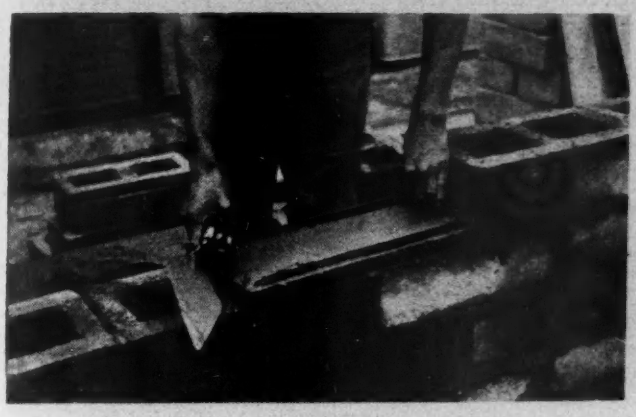

Fig. 6.—Lifting the tray from wall.

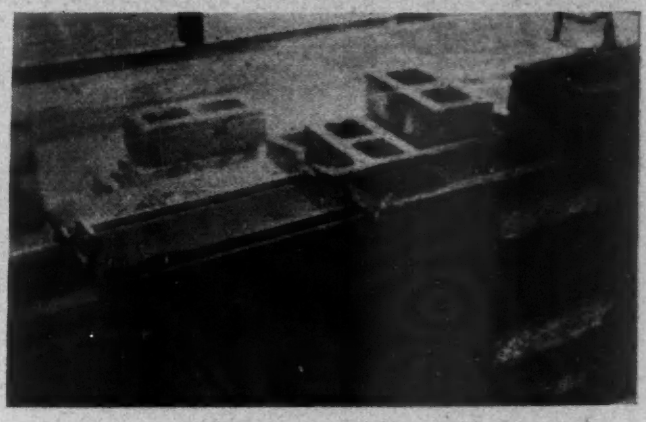

Fig. 7.—Tray in next working position.

ease of manipulation at various working heights.

(2) Whether the tray is effective in preventing mortar from dropping into the cavity.

(3) Comparison of rates of block-laying with and without the tray.

In carrying out the trial, three bricklayers were used, each of whom had a different degree of prior experience and, consequently, of skill in laying hollow concrete blocks. None of the bricklayers had used the mortar-tray before.

Eight test walls were built ; four in the normal manner, and four in which the tray was used. All the walls were identical in size, that is, 15 ft. long by 4 ft. 6 in. high, with stopped ends, and built of foamed slag concrete blocks, the 6-in. high block being selected in preference to the 9-in. high as presenting a greater number of horizontal bed-joints for a given height of wall. Some details of the tests are given in Table 1.

Each bricklayer was permitted to adopt the method which he preferred for making the vertical joints, and that method was then used throughout each test. Bricklayers A and C used the method of applying the mortar for the vertical joint to the block already residing on the wall. Bricklayer B applied the mortar, at the spot-board, to the blocks he was about to lay.

Method of Assessment.

(*a*) The work was broken down, for timing, into four elements, as follows :—

(*S*) Spreading mortar for bed-joint and (where applicable) lifting mortar-tray to next position.

(*B*) Making vertical joint, laying block and cleaning off excess mortar.

(*M*) Plumbing and measuring.

(*X*) Miscellaneous items of infrequent occurrence, *e.g.*, cleaning up the faces of joints.

(*b*) The amount of mortar used in the construction of the walls in Tests 2, 3 and 4 was measured. This was not done in Test 1 because the tray as used at this early stage did not give the specified height of bed-joint, owing to the steel rails being oversize. This fault was remedied for the subsequent tests.

(*c*) The walls were carefully demolished after completion, and the amount of mortar which had dropped into the cavities of the wall during its construction was collected and measured. (It should be noted that any mortar dropped into the cavities of a wall, built of hollow concrete blocks of the type under consideration, falls to the bottom or lodges on lintels. It cannot lodge on the cross-webs of the blocks themselves since these all lie directly in line, one above the other.)

Fig. 8.—Wall laid in traditional method, shown during demolition. Note surplus mortar overhanging cavities.

Fig. 9.—Wall laid using the tray, shown during demolition. Note economy in mortar.

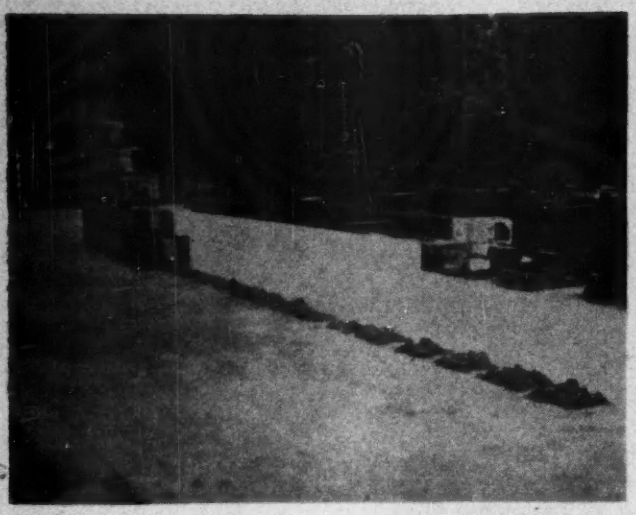

Fig. 10.—Wall laid in traditional method, showing mortar droppings.

Fig. 11.—Wall laid using the tray method, showing clean cavities.

Results

The results obtained from the tests are shown in Table 2.

Column 5 shows the net time taken to build each test wall in Normal minutes.† In the case of Test 4, however, no times were recorded, as the bricklayer concerned had no prior experience of concrete blocks; it was felt that his rate of working would be unavoidably influenced by his learning period and that the times would, consequently, be of little value. Column 6 shows the quantity of mortar used for each wall. Column 9, derived from column 8, shows the calculated level depth of mortar droppings in the cavities of a wall 19 ft. high, *i.e.*, the wall of a two-storey building.

(i) *Rate of blocklaying.*—A detailed analysis of the time spent in building the test walls is given in Table 3.

It will be seen from Table 3 that in the case of bricklayer A the time for laying the mortar bed *S* was somewhat greater when using the tray than when using his ordinary method. It is considered, however, that this time would be reduced as the bricklayer acquired more skill in using the tray. This assumption is borne out by the fact that, on comparing *S* in wall No. 4 against that in wall No. 2, bricklayer A's skill with the tray appears to have improved, showing a reduction of 7.5 per cent. in the time taken for *S*. The tray, by its simplification of the mortar spreading operation, should be of greater assistance to a relatively inexperienced bricklayer, and there is evidence for this in that although bricklayer B's time for *S* by the ordinary method is 55 per cent. longer than bricklayer A's, his time for *S* by the tray method in wall No. 6 is virtually the same as bricklayer A's in wall No. 2. It will be seen that the *B* elements in both parts of Test 2 are higher than the corresponding elements in Test 1. This is because Test 1 was largely a preliminary trial in which the tray used was oversize in depth, and consequently a definite finished height for the walls was not specified. A gauge of two blocks to the foot‡ was, however, required for Test 2, and this led to an increase in the time for positioning the blocks. The results indicate there is no significant difference in the times taken for this element by bricklayer A using either method, while the time taken by bricklayer B is reduced by 10 per cent. when using the tray. The differences under *M* and *X* for the two methods are small and are not considered to be significant.

It will be noticed that the times taken by bricklayer B are, overall, greater than those taken by A, although all the times recorded were normalised and strictly speaking the normalised time for a uniform method should be independent of the operator studied. The technique of bricklayer B compared with that of bricklayer A was, however, so fundamentally different as to constitute a different method for doing the job, hence the difference in the normalised times.

(ii) *Quantities of mortar used.*—It will be seen from Table 2, column 7, that the use of the tray effects a saving in the mortar required for the construction of the wall, In the case of bricklayers B and C the saving is considerable, being in the order of 20 to 25 per cent., while in the case of the more adept bricklayer A the saving is less marked, being in the order of 5 per cent.

(iii) *Quantities of mortar in the cavities.*—

TEST 1. The quantity of mortar in the cavity of wall No. 1 was 25 lb. (see Table 2). This wall was built with lime-mortar made with a loamy sand, which the bricklayer found some difficulty in placing because it tended to cling to his trowel. Using the same mortar and the tray for wall No. 2, the amount of mortar in the cavity was reduced to 1 lb.

TEST 2. Cement-lime mortar made up from clean sand, which left the trowel easily, enabled bricklayer A to keep the quantity of mortar-droppings down to 3.5 lb. when building by the normal method. By using the tray this amount was further reduced to 1 lb. (see Fig. 11).

TESTS 3 AND 4. With the less experienced bricklayers the droppings were reduced by the tray from 12 lb. to 2 lb. and from 21 lb. (see Fig. 10) to 3 lb. in Tests 3 and 4.

Manipulation of the Tray.

The tray was quite easily manipulated at all working heights from 6 in. to 4 ft. It was found that the tray could not be slid along the wall after use without disturbing the mortar bed and had to be lifted straight up from the wall and then placed in its next position, but no considerable loss of time was involved in this procedure. The bed laid in the normal manner was, generally, rough and uneven (Fig. 4), whilst the bed laid with the tray was neat and level (Fig. 7).

The tray only requires to be washed clean after use.

Conclusions.

(1) The tray is successful in its primary object, that is, the preservation of clean cavities in the wall.

(2) The tray effects a saving in mortar consumption, more marked in the case of a bricklayer with little experience of hollow concrete block construction.

(3) While producing a higher standard of workmanship, the tray, if it is to be of practical value, should not appreciably decrease the rate of blocklaying. The results of the tests indicate that this condition is fulfilled and, indeed, in the case of an inexperienced blocklayer an increase in working rate with the assistance of the tray is clearly evident.

Though the tests carried out on the tray were sufficient to give a general indication of its efficiency, they were not of sufficient duration to ensure that the learning period of the bricklayers in the use of the tray had in fact reached finality. Further experience with the tray would probably show it to still greater advantage. Nevertheless, as the tray is not a mechanical device, but rather in the nature of a jig, the rate of laying should not be expected to reach much beyond that of ordinary handlaying.

[The work described was carried out as part of the programme of the Building Research Board, and this paper is published by permission of the Director.]

† Normal minutes: The net productive time calculated to "Normal Rate of Working," and expressed in minutes. The Normal Rate is a time-study concept and may be defined as "the rate at which an average man will carry out the job expeditiously, but without undue sense of urgency." Deviation from this accepted standard rate can be assessed quantitatively by a trained observer and the time records adjusted accordingly. In the tests described here the elements *S*, *B*, *M* and *X* were timed and rated individually.

‡ The actual size of the nominal 18 in. by 9 in. by 6 in. blocks used was 17⅝ in. by 8⅝ in. by 5¼ in.

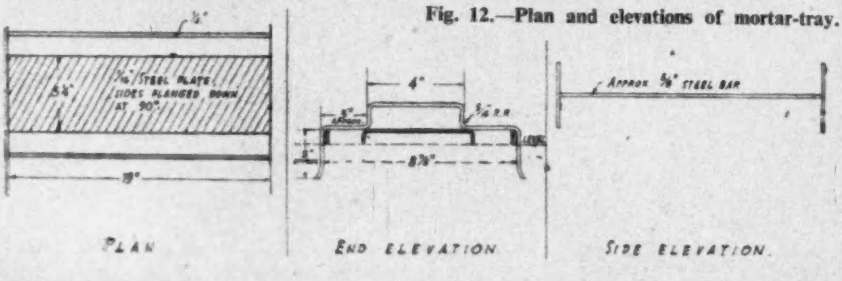

Fig. 12.—Plan and elevations of mortar-tray.

R.I.B.A.

MEMBERSHIP ELECTIONS

On December 9, 1947, the following members were elected :—

As Honorary Fellow

H.R.H. The Princess Elizabeth (Buckingham Palace).

As Fellows

Fairtlough, A. C. (Surrey) ; Mollison, W. (Kent) ; Moncrieff, H. (Kent) ; Oldacre, W. B. (Staffs) ; Winston, D., M.A., B.Arch (Liverpool), M.T.P.I. (Hants) ; Humphrys, D. R. (London).

As Associates

Adams, E. G. Y. (Dartford) ; Adams, G. R., D.F.C. (Brighton) ; Alderson, J. L. (Miss), (Manchester) ; Allen, F. E. (Miss), (Hassocks) ; Altham C. J. (Buxton) ; Anderson, R. (London) ; Atkinson, H. H., B.Arch. (Durham), (Newcastle-on-Tyne) ; Baldwin, T. A. (London) ; Balkwill, R. L. (London) Ball, K. J. (Chesterfield) ; Bancroft, B. (London) ; Bardsley, G., Dip. Arch. (Manc.), (Stockport) ; Barker, J. S., B.A. (Hons. Arch.), (Manchester) ; Barlow, E. E. (Major), (Harrow) ; Barrow, W. L. (Bristol) ; Barry, P. H. (Bristol) ; Bartholomew, V. G. (Capt.), A.R.I.C.S. (London) ; Beech, G. R. (Liverpool) ; Bellamy, I. M. (Rochester) ; Betts, J. H. (Eastbourne) ; Bidmead, R. J. (Stafford) ; Bishop, H. C. (West Wickham) ; Boddington, G. D. (Chelmsford) ; Bond, R. H. (Liverpool) ; Bonella, G. R. (London) ; Borrell, E. H. (Newcastle-on-Tyne).

Bowes, J. (Barrow-in-Furness) ; Brewins, C. D. (Wakefield) ; Brooke, M. (Miss), (Ossett) ; Brooks, E. K. (Miss), (London) ; Broome, J. S. (London) ; Brown, A. O. (Horley) ; Brown, H. F., M.C. (Southsea) ; Brown, J. H. Chaplin (Manchester) ; Brown, R., M.C., B.Arch. (Durham), (Ferryhill) ; Broome, J. H. (Mrs.), (Welwyn Garden City) ; Brown, T. (Greenford) ; Buckler, D. (Rugby) ; Bunn, J. T. (Woodthorpe) ; Burnett, A. H. (Beckenham) ; Burns, J. D. D. (London) ; Busbridge, P. (Miss), (Worsley) ; Bush, D. (London) ; Butler-Bowdon, A. W. (Mayfield) ; Cameron, C. N. (Elgin) ; Carline, T. H. (Wirral) ; Carter, J. L. (Worcester) ; Carver, O. P. (London) ; Castle Cleary, W. R. (London) ; Cavanagh, E. J. (Headington) ; Cave-Browne-Cave, L. F., Dip. Arch. (Liverpool), (Rhyl) ; Cawkwell, S. M. (Miss), (Curbar).

Challis, D. P. (St. Albans) ; Champion, M. M. (Miss), (Ringwood) ; Clarke, E. A. (Cirencester) ; Clayton, D. C. (Midhurst) ; Cocker, J. C. (Altrincham) ; Connelly, R. L. (N. Featherstone) ; Cook, C. O. J. (Brighton) ; Cooper, L. C. (London) ; Cordiner, N. C. (Aberdeen) ; Coughlan, N. G. (Newcastle-under-Lyme) ; Coutts, D. H. (Perth) ; Cox, N. H. (Halifax) ; Crocker, M. E. (Redland) ; Crowther, J. (Ilford) ; Cundall, D. O. (Miss), (Emsworth) ; Cuthill, E. R. (Junior), (Broughty Ferry) ; Cutler, A. T. (Harpenden) ; Dakin, A. J. (Bristol) ; Date, P. (Banstead) ; Davies, D. C. G. (Berriew) ; Davies, W. R. (London) ; Davis, R. H. H. (B. Arch. Liverpool), (Altrincham) ; Denby, E. C. (Miss), (Horsham) ; Dickson, F. W. (Exeter) ; Dickson, J. P. (Mrs.), (London) ; Dixon, A. A. (Edinburgh) ; Doak, A. M. (Greenock) ; Doig, W. I. N. G. (Auchenblae) ; Double, R. J. (London).

Drinkwater, N. (Major), (Plymouth) ; Duckett, H. (Redland) ; Dunton, G. W. (London) ; Duthie, R. P. (Aberdeen) ; East, F. J. (Nottingham) ; Eckersley, H. (Nottingham) ; Ellery, H. J. (London) ; Farrar, J. (Blackpool) ; Ferguson, P. S. (Edinburgh) ; Ferrari, S. J. (London) ; Field, B. P. (Wembley) ; Findlater G. R. (Sunderland) ; Fletcher, D. W. (Miss), B.A. (Hons. in Arch.) (Manc.), (Heanor, near Nottingham) ; Fletcher, D. M. (Miss), (Stockport) ; Forbes, J. M. (Burnley) ; Forbes, N. L. (Miss), (Kirkcaldy) ; Fox, L. P. J. (Edenbridge) ; Freeman, R. (London) ; Garrett, R. C. (Hassocks) ; Gatoff, M. (Newcastle-on-Tyne) ; Geach, A. D. (London) ; Germaney, R. W. (Chevening, near Sevenoaks) ; Gomersall, E. (Chester) ; Goodbody, H. N. (Lisnagry, Co. Limerick) ; Goody, D. G. (Cardiff) ; Gray, P. (Miss), B.A. (Hons. Arch.) (Manc.), (Manchester) ; Greatrex, R. I. (London) ; Grierson, I. L. E. (Miss), (London) ; Grimes, J. W. P. (Richmond) ; Gwilliam, J. G. (Barry).

Hall, R. O. (London) ; Hargreaves, H. (London) ; Harris, N. J. H. (Sheffield) ; Harrison, M. E. (Miss), (London) ; Harrison, P. H., B.A. (Manc.), (Manchester) ; Harvey, E. G. (Barry) ; Hawkins, S. B. P. (Cobham), Haydon, G. C. (Norwich) ; Hayes, T. R. (Nottingham) ; Heatley, M. E. (Miss), (Eccles) ; Henderson, J. E. (Midlothian) ; Heppell, S. A. B. (Preston) ; Hillson, W. R. (London) ; Holder, N. E. A. (Watford) ; Hollingworth, H. (Dukinfield) ; Hopkins, T. H. G. (Haywards Heath) ; Horton, R. W. (York) ; Howard, A. V. (Leicester) ; Howie, F. M. (Aberdeen) ; Howorth, J. F. (London) ; Hughes, A. G. (Wembley) ; Ibrahim, A. (Sheffield) ; Jarrett, C. S. (Capt.), (London) ; Jennings, A. J. R. (London) ; Johnson, F. P. (Chester) ; Johnson, G.A. (Shipley) ; Kerr, F. A. (Eccles) ; Kidall, J. M. (London) ; Kiersey, K., B.Arch. (Univ. Coll., Dublin, Ireland), (Monkstown) ; Knight, V. C. H. (Fleet) ; Knott, R. F. (London).

Laing, A. R. (Taplow) ; Laver, A. H. (Newcastle-on-Tyne) ; Lawrence, J. A. (London) ; Leach, R. H. (Moseley) ; Lees, W. P. (Uttoxeter) ; Leonard Williams, D. H. (Plympton) ; Leopard, G. C. (Whitchurch Glam.) ; Lewis, H. R. (Ilford) ; Linssen, S. L. P. (Miss), (Kingston-on-Thames) ; Linstrum, F. D., Dip. Arch. (Leeds) ; Litherland, S. (Acle, near Norwich) ; Locke, G. S. K. (Nottingham) ; Lockerbie, J. N. (Edinburgh) ; Lovell, J. D. (Edinburgh) ; Lusty, R. C. (Farnham) ; MacDonald, E. W., B. Arch. Hons. (Liverpool), (Portobello) ; McDool, A. R., B.A. (Sheffield), (Rotherham) ; McKay, J. K., B.A. (Hons. Arch.) (Manc.), (Fallowfield) ; Mackellar, R. N., M.B.E. (Newcastle-upon-Tyne) ; Makins, T. K. (Emsworth) ; Malkin, H. F. (London) ; Mann, M. J. (London) ; Maples, M. C. (Miss), (Ashstead) ; Mason, F. L. (London) ; Mason, J. M. (Miss), (Helensburgh) ; Matthews, D. H. (London) ; Matthews, J. A. (Weston-super-Mare) ; Matthews, L. B. (Hove) ; Miller, E. V. (Birmingham) ; Mimmack, M. A., M.B.E. (Fatfield, near Washington, Co. Durham) ; Mitchell, M. D. (Harrogate) ; Moate, F. (London) ; Moira, A. P. (London) ; Moreton, J. B. E., B.Arch. (Hons.) (Liverpool), (Llangollen) ; Morgan, B. G. (Llandudno) ; Morgan, J. C. (Birkenhead) ; Mort, W. I. (Wrexham) ; Mortimer, E. G. (Mrs.), Dip. Arch. (Leeds), (Clifton Ferry York) ; Munro, I. A. (Inverness) ; Murray, J. T. (Rossendale).

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Woods, R. (Burton-on-Trent) ; Wright, I. de V. (Miss), London ; Zeglemen, H. (Glasgow).

As Licentiates

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COMPARATIVE PRICES OF MATERIALS

	January, 1939			*January*, 1947			*January*, 1948		
	£	s.	d.	£	s.	d.	£	s.	d.
Flettons	2	6	3	4	5	0	4	8	0
Blue wirecuts	7	4	0	13	6	6	15	14	6
Glazed bricks	24	0	0	40	0	0	46	0	0
Thames ballast		7	3		12	6		15	9
Pit sand		7	9		13	0		15	2
¾ in. shingle		7	3		13	0		15	2
¾ in. broken brick		11	3		17	3		17	6
Portland cement	2	2	0	3	2	0	3	9	6
Portland stone		4	5		4	7½		4	10½
Slates 24 in. by 12 in.	31	5	0	59	2	6	65	17	6
20 in. by 10 in.	20	15	0	38	11	3	42	10	0
16 in. by 10 in.	14	7	6	27	12	0	29	2	6
Tiles :—									
Machine made	4	2	6	8	4	0	9	5	0
Hand made	4	17	6	9	1	9	11	0	0
R. S. joists	16	10	0	27	10	0	30	0	0
Sheet lead	23	0	0	85	0	0	109	10	0
Linseed oil		2	11		15	6	1	3	3
Ground English white lead	2	10	0	5	7	9	7	7	0
White lead paint		16	8	2	1	4	2	9	0
Red lead	1	18	0	4	10	9	6	12	6

Thomas, L. W. (Harrow); Vaughan, R. F. G. (Christow, near Exeter); Wollenberg, Adolf (London).

OVERSEAS
AS FELLOW,
Allen, A. M. (Durban, South Africa).

AS ASSOCIATES
(Gilbert, B. H. (Claremont, Cape, S. Africa); Jenks, A. S., B. Arch. (Rand.), (Talboton, Johannesburg).

CORRESPONDENCE

Gothic England.

TO THE EDITOR OF *The Builder*.

SIR,—I have read Mr. Harvey's letter in your issue for December 12 with much interest, and beg leave to offer the following remarks.

Reference to sources: We read at page nine, "In view of the persisting paper shortage, the problem of references presented some difficulty, and since the book is intended for general reading it was decided that the pages ought not to be disfigured with either frequent footnotes or numbers referring to them." Now, I cannot accept that as a clear statement of impossibility, and must further point out that the alternative notes, abbreviations and bibliography occupy thirty-five pages. With regard to page 55, the list of references that Mr. Harvey gives justifies my comment, and proves that the page contains the nucleus of a chapter.

The general reader: I did not criticise the general reader, and I should not be thought to oppose the writing of serious books for him. Perhaps I should also admit that probably, or at least possibly, he may not wish to be given full reference in respect of what is, perhaps, probably or possibly, the fact.

Architects and designs: I am not prepared to modify my opinion about the use of these words. I genuinely believe that they invariably suggest modern practice, and it makes no difference whether the reader be a specialist or otherwise.

Admiration and Merit: We are all entitled to our own idea as to beauty, and I must apologise if I seemed to question that right.

Craftsmen and Accounts: The instances Mr. Harvey gives do not prove that either Master James or Master Roger was responsible for keeping the account, and the correspondence mentioned does not bear upon the point. I cannot, therefore, give way.

I cannot expect Mr. Harvey to agree with me, but I am sure he would not wish me to say other than what I honestly think.

Ealing. JOHN G. NOPPEN.

The Status of Builders' Foremen.

TO THE EDITOR OF *The Builder*.

SIR,—It is possible to see the decline in standards of building craftsmanship and organisation, directly to the fall in status of the builders' general foreman during and after the last war.

The wartime practice of describing the foreman as an "agent" has resulted in considering the executive who produces the work as an inferior to the surveyor, estimator, buyer, or other factotum whose duties are purely clerical or theoretical; and, until this conception of the general foreman is rectified, the quality of leadership and ability necessary to carry out jobs will be lacking.

This tendency can be noticed in all the trade journals whose advertisements for clerical staff, even builders' clerks, appear before those of general foremen; also associations connected with the trade will admit technicians, draughtsmen and others to membership, but not general foremen.

It should be the duty of the various foremen's associations to improve the status of their members; but alas, they, too, are more concerned about their clerk of works, or agent members.

W. TOLLEY

38, Queenswood-road, S.E.24.

INLAND WATERWAY PLANS

IN his statement at the Press Conference held at the headquarters of the British Transport Commission on Monday, December 22, Sir Cyril Hurcomb, G.C.B., K.B.E., Chairman of the Commission, announced that from January 1 the Docks and Inland Waterways Executive would manage, operate and maintain the offices and staff of the nationalised canal and inland navigation undertakings on behalf of the Commission. The general conditions to which this delegation was subject were similar to those in the Scheme of Delegation to the Railway Executive, recently published, and contained provisions which would enable the scope of the activities delegated to the Docks and Inland Waterways Executive to be enlarged at a later date.

It was, in fact, intended to transfer at the earliest practicable date the railway-owned canals, which were at present included in the activities delegated to the Railway Executive, to the Docks and Inland Waterways Executive, and the steps which would enable this transfer to be effected smoothly were already under examination. It was necessary, he said, to give due consideration to the position of the staff involved, and to the organisation which would be necessary both on the maintenance and commercial sides of the undertaking. The process of the transfer must be a gradual one, but would be carried through as quickly as possible.

The Commission had come to the conclusion that as a matter of general policy the management of the trade harbours at present owned by the railway companies

should be transferred from the Railway Executive to the Docks and Inland Waterways Executive, as soon as it was practicable to make the necessary arrangements, but that it would be advisable, in most cases, to except from such transfer those harbours which were mainly interchange points between the railways and railway-owned steamer services. A scheme for the separation of the railway-owned docks from the railway systems proper was being worked out in detail between the two Executives.

In the meantime, the Docks and Inland Waterways Executive would be consulted by the Commission in matters relating to trade harbours and port facilities, and in all important questions in regard to the railway-owned docks.

The Chairman gave the names of those who would constitute the management of the undertaking, and said the Executive was so composed as to include wide knowledge and experience of the administration, management and operation of docks and inland waterways. In addition to the management of the undertakings vested in the Commission, the Executive would have advisory functions, particularly in regard to port facilities and the review of trade harbours and formulation of proposals for their reorganisation. In dealing with these problems, with their important bearing upon our overseas and coasting trades, the Executive would consult the port authorities, shipowners, importers and exporters and the National Joint Councils of the Port and Canal Industries and the National Dock Labour Board.

As a transitional measure, Sir Cyril continued, the canals and inland waterways mentioned in Part II of the Third Schedule to the Act would be organised in five areas, each under the direction of an Area Waterways Manager. Each manager would be responsible to the Executive for the co-ordination of operations and maintenance of the undertakings placed under him as a group. He would carry out the instructions issued to him from time to time by the Executive, and would, as necessary, transmit these instructions to the managements of the undertakings comprised in the group.

The Chairman concluded by saying that the Commission had requested the Executive to give special attention to measures to increase the carriage of coal and other freights by the canals, and every possible step would be taken to pool resources to enable traffic to be carried without interruption.

THE SCOTTISH BUILDER

NEW BUILDINGS

Cardonald.—At the Ordnance factory, alterations and additions to be carried out by Scottish Industrial Estates, Ltd., 3, Woodside-pla., Glasgow.

Douglas Water.—Pithead baths and canteen, etc., to be erected at Douglas Colliery by the Miners' Welfare Commission, Edinburgh.

Glasgow.—New school buildings at Killiarn-st., for which the architect is John MacNab, 129, Bath-st., Glasgow.

Glasgow.—New erections proposed for the Scottish Tar Distillers, Ltd., at chemical works, for which the architects are Beveridge & Dallachy, West George-st., Glasgow.

Glasgow.—New buildings to be erected at Devon-st. and at Eglinton-st. by G. D. MacIlvan, 377, Eglinton-st., Glasgow.—At Hillington-rd. new buildings to be erected by Cassiday & Co., 2229, Paisley-rd. West, Glasgow.

Harthill.—Housing scheme to be erected by the Scottish Special Housing Association, Ltd., Palmerston-pl., Edinburgh.

Motherwell and Wishaw.—Dean of Guild Court approved plans for school dining-rooms at Watsonville Park, Motherwell, at £4,376, and dining hall, kitchen and classroom at Dalziel High School, Motherwell, at £9,000, for Lanarkshire C.C.

NOTES ON CONCRETE HOUSES

By A Special Correspondent

THE reasons why the number of new houses built since the war have not come up to expectations are well known, but there is little doubt that the general disappointment is increased because of the many suggestions made during the war that the use of new ideas and new materials would enable houses to be built quickly and at low cost; indeed, ordinary people might be excused if they thought that science would replace work in the building of houses. Few of these ideas have contributed much to the provision of houses, and the great majority of the permanent houses built have made use of the same materials as were used before the war, and the method of construction has been the same. The small use made of concrete has been one of the major disappointments. The arguments for concrete houses are very attractive. They require no imported materials, and they can be built without the aid of bricklayers. If the houses are built of precast units, all the parts can be made in an existing factory or in a shed erected on the site. What are the reasons why the concrete house has not contributed more effectively to the house-building programme?

The first is probably that concrete houses of the standard required to-day generally cost as much as brick houses and take as long to build. Houses with solid concrete walls, built with the aid of standard steel shutters and modern plant for mixing and placing the concrete, could be built quickly and cheaply in large groups, but they would not be acceptable because of the poor insulating properties of ordinary gravel concrete. In order to conform to the standards set to-day, insulation has to be provided by cavities within the walls, by the use of dense concrete on the outside and an insulating concrete on the inside, by insulating material fixed to the inside, or by using lightweight insulating concrete throughout and rendering the outside. Moreover, gravel concrete as left from the shutters is not pleasant to look upon, and further cost and labour must be expended to make it presentable.

In the case of precast concrete the circumstances are similar. A house could be quickly and cheaply built with solid concrete blocks, but it would be unacceptable for the same reasons as walls of ordinary concrete built in situ. In the precast concrete house history has repeated itself, in that during and after both the 1914-1918 war and the last war a host of systems was evolved of which few have been used to any notable extent. In some cases this is because the systems cost more than brick houses. Some do not give the required standards of stability and insulation. Others are designed in large sections which need expensive machinery, which would not be fully employed, for handling and hoisting on the site.

Further, it is doubtful if many of these systems effect any real saving in man-hours if the labour employed in the factory and in transport is taken into account. Some systems are being used in fairly large numbers, particularly the type which makes use of reinforced concrete posts with a filling of concrete slabs erected to resemble weather-boards, and which is being mostly used in rural areas. It is possible that in some of these new systems the attempt to produce something different has resulted in complications that have defeated their own ends, and it is likely that the well-tried method of using 18 in. by 9 in. blocks to form a cavity wall is among the best because of its simplicity.

Some New Methods.

There have been some recent developments which may go a long way towards making the concrete house the cheapest and quickest to build. Among these may be mentioned prestressed concrete beams, which enable much smaller sections, and consequently lighter beams, to be used for floors and roofs, with the added advantage that they require only about one-fifth of the amount of steel required by a normal reinforced-concrete beam to carry the same load. A high dead-load is a great disadvantage in an ordinary reinforced concrete floor or roof, and if prestressed concrete beams, perhaps of tubular cross-section, can be used to reduce the dead-load one of the objections to concrete floors and roofs will be removed.

Another means of reducing the dead-load of concrete floors and roofs is the use of lightweight concrete with a density of little more than half of that of ordinary concrete. Foamed slag is one of the newer lightweight aggregates that is being extensively used for this purpose, but it is expensive if it has to be delivered a considerable distance from a blast-furnace. In the United States much use is made of clay which is expanded by heating in a kiln; this is an excellent lightweight aggregate, as also is slate after it has been expanded by a burning process. Neither of these materials has been used much more than experimentally in this country, and again the cost of transport makes them dear at a distance from the source of supply.

Concrete made without fine aggregate, as used on the Continent more than forty years ago, has been used in Britain in recent years, particularly in Scotland. This type of concrete generally comprises Portland cement and aggregate passing

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through a ½-in. sieve and retained on a ¼-in. or ⅛-in. screen, all the finer material being removed. The resulting concrete is "honeycombed" with air spaces due to the absence of fine material to fill the voids between the particles of coarse aggregate, with the result that it has excellent insulating properties which make it possible to dispense with a cavity or other means of providing thermal insulation. The material is not, however, impervious to moisture, and it must be rendered or otherwise waterproofed on the outside. It is a cheaper method of construction because less material is used and because the concrete is placed in situ. Also, close-boarded shuttering is not necessary because there is no sand-cement mortar to ooze through joints; the only mortar in the concrete is that which adheres to and binds together the aggregate, and for this reason it is the practice to use as shuttering sheets of expanded metal fixed to wooden frames. This method of building houses is simple, it follows the ordinary and well-known principles of in-situ concrete construction, and its insulation properties meet the official requirements.

On some groups of houses the types of plant more generally associated with civil engineering works are being employed. For example, on one site steel shuttering is erected to the full storey height of the outer and partition walls and machine-mixed concrete is delivered by a pump, the pipe-line being lengthened as the houses are finished and the concrete is required farther from the mixing and pumping plant.

The idea of casting walls horizontally, complete with door and window frames, conduits for electricity and other services, wall plates, and studs or other means of fixing the internal lining, is an attractive one, but it needs plant for hoisting, and transport is expensive unless the slabs are made on the site. The method was used in this country about 25 years ago, and is now being fairly extensively used in Australia. In the most promising of these Australian schemes the walls for single-storey houses are cast on a table that can be tilted through 90 degrees, so that when the slab is hard the table is tilted and the slab placed vertically on a trolley, which takes it to the site, where it is transferred to the foundation. In this case the foundation comprises a number of concrete posts with their tops about 2 ft. above ground level which carry a concrete floor, so that there is an air space between the floor and the ground, which is enclosed by precast concrete slabs.

Of whatever material the walls are built, precast concrete can be used to replace timber in many directions. There are now factories in most parts of the country producing concrete hoods and sills, door frames and steps, window frames, stairs, floor and roof beams, and so on, and the Ministry of Health has urged local authorities to use concrete roofing tiles wherever possible, so as to reduce the demand for clay tiles. Concrete is now the only material that can be readily obtained for fencing, clothes-line posts, and other purposes around the house. Slabs in larders, chimney caps, porches, screen walls to doors are other purposes for which concrete is now being used in place of wood or brick, and many others come to mind.

Although concrete has not made the contribution to the house-building programme that was expected of it, it is possible that some of the processes now being developed will result in much more use being made of this material when the work is started again on a large scale.

FUTURE CONSTRUCTION

PUBLIC APPOINTMENTS

Full details of Public Appointments open will be found in the Advertisement pages of this and previous issues.

CONTRACTS OPEN

For some contracts still open but not included in this list see previous issues. Those with an asterisk are advertised in this number. The dates at the heads of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING

JANUARY 14.

†**Withernsea U.D.C.**—20 houses at Lyndhurst estate. Norman Dixon, C., Municipal-bldgs. Dep. £2 2s

JANUARY 17.

†***Brighton, Hove and Sussex Grammar School Joint E.C.**—Reinstatement of boarding houses and headmaster's house. B.E. and S., 26-30, King's-rd., Brighton. Dep. £2 2s. Tenders by February 2.

†***Coventry Local E.C.**—Alterations and additions to form school kitchen at Centaur-rd. school. W. L. Chinn, D. of E., Ed. Offices, Council House. Dep. £2 2s.

†***Coventry Local E.C.**—Reinstatement and additions at Barkers Butts school. W. L. Chinn, D. of E., Education Offices. Dep. £2 2s.

†***Essex Court of Quarter Sessions and C.C.**—Accommodation for probationer policemen at Police Headquarters, Springfield, Chelmsford. H. Conolly (F.), County A., County Hall.

Tenbury R.D.C.—14 houses with roads and sewers at Frogs-cl., off Cross-st. C. E. T. Booth, Architect, Kyrle-st., Hereford. Dep. £2 2s.

JANUARY 19.

Brentford and Chiswick T.C.—Conversion of 32 huts at Gunnersbury Park. B.E. & S. Dep. £5 5s.

†***Bucks C.C.**—3 pavilion wards at Manor House Institution, Aylesbury. County A., County Offices, Aylesbury. Dep. £2 2s. Tenders by February 16.

Durham T.C.—20 Airey-type houses at Sunderland-rd. City E. Dep. £3 3s.

Guernsey.—16 houses at Grandes Rocques Barracks, St. Sampson's. E. F. Lainé, States Engineer, States Office, Guernsey. Dep. £1.

Liverpool T.C.—Kitchen and dining room at St. Matthew's and Florence Melby schools, Norris Green. City A. and Director of Housing. Dep. £2 2s.

†***Sandy U.D.C.**—20 houses. C., Council Offices, Boyne House, St. Neots-rd., Sandy. Dep. £2 2s.

***York T.C.**—50 traditional houses at Manchester estate. C. J. Minter, City E. and A., Guildhall. Dep. £2.

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JANUARY 20.

Aylesbury R.D.C.—4 pairs of Airey houses with service road, at Kingswood. R. C. White, Ceely House, Church-st., Aylesbury. Dep. £2 2s.

Leeds.—Conversion of 7 and 9, Belmont-gr. into flats. R. A. H. Livett, City A. Dep. £2 2s.

†***Norfolk E.C.**—Kitchen and stores at Roydon County Primary School. F. G. Limmer (F.), Ed. Architect, Stracey-rd., Norwich. Tenders by January 30.

JANUARY 21.

Leeds T.C.—84 flats and laundry at Sweet-st. R. A. H. Livett, O.B.E. (A.), Priestley House, Quarry Hill, Leeds 9. Dep. £2 2s.

Sutton Coldfield T.C.—28 traditional houses at Springfield-rd. B.S. Dep. £2 2s.

JANUARY 23.

†**Eastbourne C.B.**—Erection of first instalment of junior school, The Hydneye, Hampden Park. Boro' E. Dep. £2 2s.

Leicester E.C.—(a) New secondary 4-stream modern school at Gwendolen-rd.; (b) new secondary 4-stream modern school at Hamelin-rd. City A., 7, Newarke-st., Leicester. Dep. £3.

†***Merton and Morden U.D.C.**—Repair of war damage and dilapidations at Sir Joseph Hood Memorial Playing Field Pavilion and Groundsman's Quarters, Motspur Park. H. May, C. Dep. £3 3s.

JANUARY 24.

†***Watford T.C.**—12 brick houses at Garston Park estate. F. C. Sage, A.M.Inst.C.E., B.E. and S. Dep. £2 2s.

West Mersea U.D.C.—10 houses and external works at Dawes-la. E. G. Wilks (L.), 7, Rose-cres., Cambridge. Tenders by February 14.

JANUARY 26.

Atherstone R.D.C.—10 houses at 2 sites. H. N. Jepson (A.), Midland Bank-chbrs., Nuneaton. Dep. £3 3s.

***Derby C.B.**—Two temporary classroom blocks at Roe Farm school. Thos. W. East (F.), Boro' A., The Council House. Dep. £2 2s.

JANUARY 27.

***Watford R.D.C.**—24 houses at Hazelwood-la., Hunton Bridge. Dawe and Carter, 83, High-st., Watford. Dep. £1 1s.

JANUARY 28.

Northampton R.D.C.—37 houses in 4 parishes. R. J. Miller, Architect, 1, Cheyne-walk, Northampton Dep. £3 3s.

†**Tanganyika Packers, Ltd.**—Large factory project at Dar-es-Salaam, Tanganyika Territory, East Africa. Blackburne, Norburn and Partners, P.O. Box 890, Nairobi, Kenya Colony. (Plan and bird's eye view may be seen at offices of Liebig's Extract of Meat Co., Ltd., Thames House, Queen Street-pl., London, E.C.4.

JANUARY 30.

***Bootle C.B.**—2 dwellings at corner of Moss Land and Johnstone-ave. B.E. and S.

East Suffolk C.C.—(a) Canteen kitchen and dining-room at Beccles Secondary Modern School; (b) canteen kitchen and dining-room at Roydon Area School. E. J. Symcox (F.), County A., County Hall, Ipswich. Dep. £2 2s.

JANUARY 31.

Weston-super-Mare T.C.—36 houses at Alexandra estate. B.E. & S. Dep. £2 2s.

FEBRUARY 2.

Blackwell R.D.C.—Construction of three concrete service reservoirs. E., 100, Chesterfield-rd. South, Mansfield, Notts. Dep. £5 5s. each contract.

Bournemouth C.B.—21 houses at Berrans estate. Boro' A. (Room 51). Dep. £2 2s.

FEBRUARY 9.

***Dunstable T.C.**—14 houses at Beecroft estate. B.S. Dep. £2 2s.

Hants C.C.—Light construction school buildings and site works at New Elson, Gosport. S. Low, County A., The Castle, Winchester. Dep. £1 1s.

FEBRUARY 10.

Hants C.C.—First instalment of Secondary School, Aldershot. S. Low, County A., The Castle, Winchester. Dep. £1 1s.

FEBRUARY 12.

***Salop C.C.**—Prefabricated hutting for temporary office accommodation at Shrewsbury. A. G. Chant, County A., 5, Belmont, Shrewsbury. Dep. £2 2s.

MISCELLANEOUS

JANUARY 26.

***Finchley B.C.**—Demolition of 1170 and 1172, High-rd. and Floyd's Dairy Premises, Friern Barnet-la. B.E. and S. Dep. £1.

PAINTING, ELECTRIC LIGHTING, MATERIALS, ETC.

JANUARY 17.

Berks C.C.—County S. (Materials).

JANUARY 19.

Cumberland C.C.—County S., Citadel-chbrs., Carlisle. (Materials.) (Stamped and ad. env. required.)

Ilkeston T.C.—B.E. and S. (Materials).

JANUARY 21.

Cambs. C.C.—County S. (Materials).

Wanstead and Woodford T.C.—B.E. and S (Materials).

JANUARY 23.

Battersea T.C.—T.C. (Materials).

JANUARY 24.

Bootle C.B.—B.E. and S. (Materials).
Farnborough U.D.C.—E. and S. (Materials).
Huddersfield C.B.—External painting of houses at various sites. Boro' A. Dep. £2.

JANUARY 26.

Goole T.C.—B.E. & S. (Materials.)
West Suffolk C.C.—County S. (Materials).

JANUARY 28.

Hackney B.C.—B.E. and S. (Materials).
Lambeth B.C.—B.E. (Materials).

JANUARY 31.

Finsbury B.C.—B.E. (Materials).
Hunts C.C.—County S. (Materials).
New Windsor T.C.—B.E. and S. (Materials).

FEBRUARY 2.

***Hayes and Harlington U.D.C.**—E. and S. (Materials).
St. Marylebone B.C.—T.C. (Materials).

FEBRUARY 3.

Kensington B.C.—T.C. (Materials).

FEBRUARY 6.

Tottenham B.C.—T.C. (Materials).

FEBRUARY 7.

Crompton U.D.C.—E. and S. (Materials).
Rainford U.D.C.—S. (Materials).
Rhondda U.D.C.—E. and S. (Materials).
Ruislip-Northwood U.D.C. — E. and S. (Materials).
Swansea C.B.—B.E. and S. (Materials).
Whitchurch U.D.C.—S. (Materials).

FEBRUARY 11.

Wandsworth B.C. — External painting of dwellings. Housing Estates Manager, Municipal-bldgs.
West Sussex C.C.—County S. (Materials).

ROADS, SEWERAGE AND WATER WORKS

JANUARY 16.

†***Leominster T.C.**—Advance preparation of Westfield-Walk site. Walter B. Bond, F.R.I.C.S., Colmore-chbrs., 3, Newhall-st., Birmingham, 3. Dep. £2 2s.

JANUARY 20.

Darlington C.B.—Construction of new main outfall sewer. B.S. Dep. £10.

JANUARY 21.

Caterham and Warlingham U.D.C.—Preparation of site at No. 15, Crewes-la., Warlingham. E. and S. Dep. £2 2s.

JANUARY 22.

Ashbourne R.D.C. — Reservoir, pumping station and laying of mains. H. Litchfield, S., Compton Offices. Dep. £1 1s.
Tamworth R.D.C.—Roads and sewers at Tamworth-rd. scheme. E. and S. Dep. £2 2s.

JANUARY 24.

Barrow-upon-Soar R.D.C.—4,000 yds. of 12-in. and 9-in. dia. stoneware and concrete sewers, etc., at Queniborough. Pick, Everard, Keay and Gimson, 6, Millstone-la., Leicester. Dep. £2 2s.
Kirkby-in-Ashfield U.D.C.—Roads and sewers at Skegby-rd. estate. B. W. Bostock, S., Public Offices. Dep. £2 2s.
Wycombe R.D.C.—Sewerage and sewage disposal works at Bledlow Ridge site. J. M. Smith, M.I.Mun.E., A.M.I.Struct.E., 28, High-st., High Wycombe, Bucks. Dep. £3 3s.

JANUARY 27.

Truro R.D.C.—Making-up roads at four estates. A. J. Cornelius, 13, Lemon-st., Truro.

JANUARY 28.

Stourport-on-Severn U.D.C.—Surface water drain at Lower Lickhill-rd. S., Council House Dep. £2 2s.

JANUARY 29.

†**Braughing R.D.C.** — Preparation of site at Baldock-la., Buntingford. C., 2, Hockerill-st., Bishop's Stortford.

FEBRUARY 4.

Potters Bar U.D.C.—Roads and sewers at Blanche-la. E. and S., Wyllyotts Manor; Darkes-la. Dep. £2 2s.

FEBRUARY 5.

***Calne and Chippenham R.D.C.**—Roads and sewers, etc., at Quarry Hill site, Box, Wilts Walter Rudman and Edwards, 32, Market-pl., Chippenham. Dep. £3 3s.

FEBRUARY 14.

Hertford R.D.C.—Preparation of site at Tonwell. C., 20, Castle-st., Hertford. Dep. £3.

NO DATE.

Ringwood R.D.C.—Construction of sewage disposal plant, drains and manholes at Hale housing site, nr. Fordenbridge. F. Andrews (L.), 45, High-st., Ringwood, Hants.

GENERAL BUILDING WORK (LONDON)

Barking.—Extension.—Cle-Pol Manufacturing Co., Ltd., to extend factory, West-bank. Plans by Stretton and Co., 462, Hoe-st., E.17.
Barnet.—Housing.—M. of H. approved erection of additional 10 houses by U.D.C., Colney Hatch-la. site.

BUILDER PRICES.

Brick Prices.

Alterations to maximum prices of common building bricks have been authorised by M.O.W. The First Schedules to the Bricks (Range of Prices) Orders, 1947,* are replaced by the amending Orders,† which come into force on January 5, 1948. The new maximum prices, based on cost investigation, include provision for the recent increase in coal and rail freight costs. The overall effect of the amendments is to raise the average maximum price of all types other than Fletton bricks, which remain unchanged, by 6s. per 1,000. The majority of the alterations range from a reduction of 5s. 6d. per 1,000 to an increase of 15s. per 1,000. The minimum prices of all common bricks remain unchanged.

The difference in maximum price between bricks produced in East Cheshire and the adjoining part of Lancashire, and between the City of Birmingham and the adjoining counties is discontinued.

Portland Cement.

The price of ordinary Portland cement and rapid-hardening Portland cement has been advanced by 1s. per ton as from January 7. The price of "Aquacrete," "47" cement, "Cullamix," "Colorcrete" and "Snowcrete" are advanced accordingly.

Lead Sheet and Pipe.

The Cookson Lead and Antimony Co., Ltd., Messrs. Locke, Lancaster and W. W. & R. Johnson & Sons, Ltd., and Messrs. Walkers, Parker & Co., Ltd., announce that prices of lead sheet and pipe are reduced by £2 per ton, w.e.f. January 1. The new basis prices for 2-ton lots are as follows: Sheet lead, 106s. 6d. per cwt.; lead pipe, 107s. 9d. per cwt. Less 2½ per cent. for cash monthly discount—subject to the usual Schedule extras

* S.R. & O., 1947 (Nos. 1641 and 1642).
† S.R. & O., 1947 (Nos. 2821, price 2d., and 2822, price 1d.).

Bermondsey.—Alterations.—To barge-building works, etc., Rotherhithe-st., for Talbot Bros. Architect, Sydney W. Parker (L.), 134, Upper Thames-st., E.C.4.
Bexley.—Houses.—Housing programme for 1948-49 provides £366,540 for 300 houses.
Bromley.—Housing.—Plans for 400 houses at Hayes Place estate by Dalgleish and Pullen (F.F.), 17, Fitzhardinge-st., Portman-sq., W.1.
Camberwell.—Flats.—L.C.C. has sanctioned borrowing by B.C. of £22,470 and £10,175 for two blocks of flats in Rainbow-st. and Bonsor-st., and a three-storey block in Adys-rd.

Chelsea.—Flats.—B.C. are purchasing Lucan-pl.-Ixworth-pl. site for flats.
Chelsea.—Flats.—B.C. propose flats on Bdithgr. site.
Chiswick. — Conversion. — B.S. to prepare scheme for conversion of hutted camp, Civil Service Sports Ground, into dwelling accommodation, for B.C.
Croydon.—Projection Room.—At Croydon Polytechnic for £764.
Enfield.—Factory.—Chase Non-ferrous Metal Co., Ltd., propose new factory and stores, Genotin-rd. Plans by W. Goodchild and Co., surveyors, 4, Silver-st., Enfield.
Finsbury.—Flats.—M.O.H. has sanctioned early erection by B.C. of 94 flats, Busaco-st. housing scheme.
Forest Hill. — Flats. — L.C.C. sanctioned borrowing by Lewisham B.C. of £58,234 for 28 flats at Sunderland-rd., Forest Hill.
Hampstead.—Building.—L.C.C. have compulsorily acquired two sites in the borough; the five and a half-acre site fronting Boundary-rd. and Abbey-rd. and a site between Burgess-hill and Lyndale, Child's-hill.
Hillingdon.—Development.—Layout plans for second and third sections of Violet Farm estate, Hillingdon, to be submitted to M.O.H. by Uxbridge U.D.C. Approval to be sought for permission to lay roads and sewers.
Hornsey. — Rebuilding. — Ecclesiastical Commission, 1, Millbank, S.W.1, to rebuild 53, Talbot-rd., N., at £3,300. Surveyors, Cluttons, 5, Great College-st., S.W.1.
Kingston-on-Thames. — Rebuilding. — Plans approved for rebuilding 81, Kingston-hill at £7,000. Architect, F. Barber (F.), 3, Apple-market, Kingston-on-Thames.
Kingston-on-Thames. — Alterations. — Plans approved by T.C. for alterations to form canteen and kitchen at 11b, Bonner Hill-rd. for laundry.
Leyton.—Nursery.—B.S. to prepare plans for erection of nursery, and site is being considered at corner of Belvedere-rd. and Lea Bridge-rd.
London Area.—Bus Garages.—L.P.T.B., 55, Broadway, S.W.1, propose new omnibus garages at Godstone, Hatfield, Shepherd's Bush, Kingston-on-Thames, Streatham, Romford and Peckham, and rebuilding of existing ones at Elmers End, Leyton, Holloway, Hounslow, Croydon, Camberwell, Edgware, Hornchurch and Dartford. Board's chief architect, Thomas Bilbow, F.R.I.B.A.
Marylebone.—Flats.—M.O.H. approved B.C.'s co-operation with St. Marylebone Housing Association for development of Cochrane-st. site.
Oxford-st. — Alterations. — To departmental premises, 197-205. Architects, Lewis Soloman and Sons, 21, Bloomsbury-way, W.C.1.
Paddington.—Extension.—To nurses' home, etc., proposed by governors of St. Mary's Hospital, Praed-st., W.2. Architects, Young and Hall, 9, Southampton-row, W.C.1.
Pimlico. — Flats. — M.O.H. has sanctioned erection by Westminster C.C. of first block of 104 flats of Pimlico building scheme.
Potters Bar. — Nursery. — Adaptation of "Northaw Place" as public assistance nursery for C.C. Tenders to be invited.
South Kensington.—Petrol Station, Garages, etc., at Old Brompton-rd., S.W.7, for Brew Bros., Ltd. Architects, Wallis, Gilbert and Partners, 5, Cromwell-rd., South Kensington, S.W.7.
Southwark.—Building.—L.C.C. has sanctioned borrowing by B.C. of £126,414 for acquisition of sites in Doddington-gr., Nelson-sq., Penrose-st. and St. Agnes-pl.
Stratford.—Public House.—Plans prepared by Donald Hamilton and Partners, 7, Connaught-pl., Hyde Park, W., for temporary public house and living quarters at corner of Romford-rd. and Woodgrange-rd., E.
Twickenham.—Building.—Coombe's Bakeries, Ltd., The Causeway, Teddington, Middlesex, to build new central bakeries, stores, offices, etc., Crane-rd. and Gould-rd. Architects, Brewer, Smith and Brewer, 11, The Green, Richmond, Surrey.
Uxbridge.—Community Centre.—U.D.C. proposes to acquire Ickenham Hall, Glebe-ave., Ickenham, for community centre.
Uxbridge.—Conversion.—U.D.C. to submit scheme to M.O.H. for conversion of "New Belmont," Uxbridge-common, into half-way house accommodation.
Wembley. — Housing. — B.C. seek M.O.H.'s approval for erection of further 30 houses on Sudbury Farm estate.
Wembley.—Day Nursery.—B.C. propose to acquire land adjoining "Lewgars," Slough-la., for day nursery.
Wembley.—Day Nursery.—Proposed by B.C., Grove-pk.
Wembley. — School. — B.C. negotiating for Welsh Hay Open Space for new primary school.
Wembley.—Houses.—M.O.H. approved erection of houses on Mall estate by B.C.
Wembley.—Flats.—B.E. and B.S. submitted preliminary scheme for Keneric Court site to B.C. Plan comprises 102 flats.
Wembley.—Health Centre.—B.C. making compulsory purchase order for land in The Avenue between Mayfields and Corringham-rd. for health centre.
West Ham.—Rebuilding.—89-105, Shakespeare-cres. (architect, P. F. Tomlin, F.S.I., 195, High-

rd., N.22); 76-78, Dersingham-ave. (architect, A. R. Upsdale, F.R.I.C.S., 734, Romford-rd., Stratford, E.12); 122-124, Lawrence-ave. (architects, Athawes, Son and Co., 17, High-st., Acton, W.3); 354, Strone-rd. (architects, A. J. Shingler and Partners, 13-15, Wilson-st., E.C.2).

Wimbledon.—FLATS.—Plans prepared for 3 blocks of 54 flats and 12 blocks of houses at West-side House site, costing £150,000. Architects, Buchanan and Coulter (FF.), 5, Bedford-row, W.C.1.

(PROVINCIAL)

Ashton-in-Makerfield.—U.D.C. propose developing 17 acres of land at Landgate-la. for housing estate.

Aspull.—U.D.C. propose developing a 12-acre site off Wigan-rd. for houses.

Bath.—E.C. received sanction to expend £45,000 on conversion of Newton Park into training college. Plans by A. J. Taylor & Partners, 4, Bridge-st., Bath. Quantity surveyors are W. E. Underwood & Son, Northumberland-bldgs., Bath.

Blackburn.—E.C. propose central school kitchen at Mile End-rd.—Trustees of the Blackburn Savings Bank propose branch banks at Eanam and Haslingden.

Bolton.—T.C. approved:—Works canteen at Adam-st. for Crosses & Winksworths, Ltd.; offices, workshop, stores and garage off Tonge Moor-rd. for F. Powell; alterations to works at Manchester-rd. for W. Knowles & Son (Garages), Ltd.; works extensions, Weston-st., for Bolton Leathers, Ltd.; works extensions, Jethro-st., for S. Turner & Sons; Primary school, Lever Edge-la., for E.C.—T.C. propose shops at Breightmet Hall and Lever Edge-la. estates.

Brighouse.—T.C. approved:—Additions to works at Birds Royd-la. for Helliwell & Co., Ltd.; extensions for offices at Clifton-rd. for Brighouse Traders' Fanciers and Utility Trading Society, Ltd.

Bromsgrove.—R.D.C. approved:—Grass drying plant house at Home Farm, Tutnall, for J. C. Beckett; grass drying plant house at Manor Farm, Wythall, for A. E. Beckett; farm buildings and garages, Cobs Barn Farm, Alvechurch, for Meredith & Russell; repair garage and filling station at Cross Roads, Dodford, for E. C. Woodhouse.

Bury.—A. Worsley & Sons, Ltd., propose alterations to factory at Fountain-st. North.

Chesterfield.—Royal Hospital Board approved layout plans for hospital buildings at Ashgate. A. Saxon Snell & Rees Phillips (FF.), architects, 9, Bentinck-st., Manchester-sq., London, W.1.—E.C. propose grammar school at Storrs-rd. site.

Dartford Corporation.—BUILDING.—B.C. passed plans for factory on south side of Watling-st. for Clarke & Land, Ltd.; garage, showrooms, filling station and living accommodation, "The Dump," Rochester-way, for W. E. Rice (Hargreaves & Reed, architects); rebuilding of 161, Shepherd's-la., for P. A. Pocock (McConnells, surveyors); pair of semi-detached houses, Burnham-rd., for Dartford Industrial Co-operative Society, Ltd.; layout of cafe and maisonettes, garages for lorries, and sleeping quarters, at "The Dump," Rochester-way, for C. J. Rice (Victor Kerr & Colbourn, architects); pair of semi-detached houses, 41 and 43, Carrington-rd., for F. A. Benbow & P. Smith (McConnells, surveyors); rebuilding of 15, 17 and 19, Bayly-rd. for Wilder & Wilder (architect, G. E. Burgess); rebuilding 38, Carrington-rd. for J. T. Draper.

Eton (Bucks).—Subject to M.H. approval, R.D.C. propose two blocks of Duplex houses and one block of flats at Stoke Poges site.

Hereford.—Greenlands, Ltd., to extend furniture depository, Commercial-rd. Plans by Cecil Corey, A.F.A.S., 40, Cotterell-st., Hereford.

Hindley.—U.D.C. approved:—Additions to works at Leigh-rd. for John Dale, Ltd.

Huyton-with-Roby.—Lancs E.C. propose dining-rooms at St. Aloysius' R.C. Schools

Lancaster.—Trustees of Lancashire Education Endowment propose boarding hostels for boys at Ripley and one for girls at Carr House.

Leyland.—Lancs E.C. propose extensions at Junior schools.

Lichfield.—E.C. propose 2 new schools and improvements to existing schools at £448,000.

Macclesfield.—Cheshire C.C. propose Technical College at Park-la.

Maghull.—Homes for Epileptics, Board of Management propose extensions and improvements to homes at £75,000.

Manchester.—T.C. approved:—Additions to motor repair workshops off Stockport-rd., Levenshulme, for Speedy Services Motor Depot (E. Gort); 232, Stockport-rd., Rose Hill, Marple, Ches.; alterations to factory, Greenheys-la., Chorlton-upon-Medlock, for J. H. Dutton & Co., Matley (Brotherton & Mills, architects, 39, Oxford-st.); alterations, etc., to factory, New Bank-st., Ardwick, Hindle, for Smart & Co., Ltd. (W. Johnson & Son, architects, 27, Oldham-rd., Miles Platting); alterations to works, Back Mather-st., London-rd., for C. C. Dunkerley & Co., Ltd., Store-st.—T.C. propose public conveniences at Platt Fields, Rusholme, and at junction of Kingsway and Wilmslow-rd., East Didsbury, at £6,200.

Manchester.—T.C. approved:—Alterations to factory, Gt. Jackson-st., Hulme, for Sutcliffe Ventilating & Drying Co., Ltd. (Halliday & Agate (FF.), architects, 14, John Dalton-st.); reinstatement of war damage to factory, Rylance-st., Higher Ardwick, for Clarence & Co.—E.C. propose County Primary school and nursery class at Wythenshawe.

Margate.—A.B. Metal Products, Ltd., Feltham, Middx., to erect factory at Ramsgate-rd. industrial estate. Plans by Shaw & Lloyd, 74, Great Russell-st., W.C.1.

Middlesbrough.—T. A. Crawford, 80, Borough-rd., Middlesbrough, is architect for factory for H. Pooles & Son, Stockton-st.

Newcastle.—Montague Burton, Ltd., Leeds, to extend shop premises at Clayton-st.

Newcastle (Staffs).—T.C. approved:—Extensions to foundry, Cemetery-la., Silverdale, for Newcast Foundries, Ltd. (Hollins, Jones & Oldham (AA.), architects, Lloyds Bank-bldgs.); additions to engineering works, Sutton-st., for W. Tagg & Co. (A. P. Lovatt, architect, Hanover-chbrs., Brunswick-st.).

Newcastle-on-Tyne.—Walkers, Parker & Co., Ltd., Elswick Lead Works, to erect offices at Skinnerburn-rd.; alterations and additions proposed at Queen Victoria-rd. for Royal Victoria Infirmary to plans by W. Curtis Green, Son & Lloyd, 5, Pickering-pl., St. James's, London, S.W.1.

Newcastle-on-Tyne.—Licence expected to be issued shortly for erection of bakery at Cowgate for Carricks (Caterers), Ltd., Grey-st., Newcastle. Plans by Marshall & Tweedy, Grainger House, Blackett-st., Newcastle-on-Tyne.

North Shields.—The Trent Oil Products, Ltd., Scunthorpe, propose oil refinery.

Northumberland.—E.C. acquired 14 acres of land at Bellingham for two schools at £70,000, which have been sanctioned. Plans by W. W. Tasker, County A., County Hall, Newcastle.

Northumberland.—P. L. Browne, Son & Harding, Pearl-bldgs., Newcastle, are architects for colliery canteen at Stobswood.

Oldham.—T.C. approved additional offices at Lion Works, Tattersall-st., for S. Dodds & Sons, Ltd.; additions to works and offices at Union-st. for E. J. Wildgoose, Ltd.

Plymouth.—City Council approved offices at Cattewater-rd. and Prince Rock for Cole Bros. (Plymouth), Ltd.; block of offices, Mutley Plain, for Whitmarsh, Castleden and Edgecombe; warehouse, Sutton-rd., for Gerald Glanville, Ltd.; reconstruction of existing building at 23, Wyndham-sq., for the Vicar and Churchwardens of St. Peter's Church; commercial garage at Lower-st., for Plymouth Co-operative Society, Ltd.; layout of building estate at Kirkdale-gdns., Beacon Down-rd. and Ayreville-rd., for J. Westcott; additions to Beechwood factory, Alexandra-rd., Mutley, for Brown, Wills & Nicholson, Ltd.

Portsmouth.—Admiralty, Whitehall, S.W.1, considering rebuilding and modernisation of naval barracks. Consulting architect is E. Berry Webber (F.), 39, Gordon-sq., W.C.1.

Rochdale.—E.C. propose central kitchen at Wardle.

Rochdale.—T.C. approved:—Additions to works at Queensway for D. Bridge & Co., Ltd.; extensions, Manchester-rd., Castleton, for Castleton Motors, Ltd.; additions to works, Crawford-st., for Orama Mill, Ltd.

Rugby.—Rugby and District Co-operative Society, Ltd., propose 3 shops with 3 flats over at Cromwell-rd. Plans by W. J. Reed (A.). Co-operative Wholesale Society, Ltd., 99, Leman-st., Stepney, E.1.

Salford.—T.C. approved:—Extensions at Alpha Mills, Gordon-st., Broughton, for B. Caplan, Ltd. (L. D. Clegg, architect, Empire-chbrs., 5, Queen-st., Oldham); Lupruffe, Ltd., propose factory at Lower Broughton-rd.—Catholic Authorities of St. Thomas', Broughton, propose Primary school at Hadfield-st. recreation ground.—T.C. propose Secondary school at Cromwell-rd. and Gerald-rd., Pendleton.—E.C. propose nursery school at Brindle Heath school.

Southport.—T.C. approved educational development plans, including 14 schools, at £1,131,777.

Stafford.—T.C. propose municipal bus station at rear of South Walls.

Stockport.—T.C. approved:—Alterations to shops at Higher Hillgate for Rileys Stores, Ltd.; offices, Carlyn Garage, Manchester-rd., Heaton Chapel, for Penningtons (Stockport), Ltd.; Joseph Percival, 295, Buxton-rd., Great Moor, propose alterations to factory.

Surrey.—C.C. approved scheme for provision of community centres at Selsdon, Farleigh, Sanderstead, Coulsdon West and Coulsdon East, and Kenley.

Swansea.—T.C. approved site plan for reconstruction of Griffith Thomas and Folland Wards of Swansea General and Eye Hospital.—B.A. submitted to Welsh Board of Health for approval schemes for 56 traditional houses and 100 Wimpey houses at Penlan estate.—T.C. proposes to acquire site at Parkhill-rd. East Penlan, for construction of Junior and Infants' school.

Thurrock.—Essex E.C. approved plans, Little Thurrock Secondary Boys' school at £99,800.

Tipton.—T.C. approved:—Extensions to works at Hurst-la. for Beano Industries, Ltd.; additions to Britannia works for Revo Electric Co., Ltd.; additions to works, Birmingham New-rd., for W. Elwell & Sons, Ltd.

Tynemouth.—J. R. Wallace, Northumberland-sq., North Shields, is architect for Marden-ave. infants' school for E.C. J. S. Glover, 29, King-st., South Shields, appointed quantity surveyor.

Wearmouth (Durham).—Miners' Welfare Commission propose canteen at Wearmouth Colliery.

Wellingborough.—R.D.C. propose 60 houses for agricultural workers at Hardwick, Harrowden, Sywell, etc.

West Hartlepool.—T.C. propose maternity ward and ante-natal clinic at Howbeck Hospital at £12,000. J. S. Miles, B.E.

West Mersea.—M.H. has approved scheme for 10 houses for agricultural workers at Dawes-la. for U.D.C.

West Riding.—E.C. approved preliminary plans for bi-lateral school at Worsborough at £477,214.

Wolverhampton.—M. of E. authorised erection of first part of Secondary Modern school at Bushbury (North) estate.

Worthing.—B.C. approved:—Alterations and additions, Newlands-rd. and Station-rd., for Ivens, Kelletts & Child, Ltd. (architect, F. W. Eddolls, Church-st., Storrington); alterations, 58-60, Montague-st., for Walter Bros., Ltd. (architect, F. W. Eddolls); alterations and additions, Courtlands, Goring-rd., for Worthing Hospital (architects, Thompson, Walford & Fielder, Leadenhall-bldgs., Leadenhall-st., E.C.3); 15 houses, Sackville-st., for W.P. Estates and Investment Co., Ltd. (architects, S. C. Phillips & Kirk, 32, Chapel-rd., Worthing); church hall, Barrington-rd., for Congregational Guild (architects, Denman & Son, 27, Queen's-rd., Brighton).

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† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modification.*
¶ Denotes *accepted by H.M. Government departments.*

Ashford.—Completion of unfurnished buildings at Stanwell-rd. Secondary school, for Middx. E.C.: *W. S. Try, Ltd., High-st., Cowley, Uxbridge, £29,090 (subject to M.E. approval).

Barnard Castle.—Houses for R.D.C. Eight at Cockfield with roads and sewers: *R. C. Williamson, Rowlands Gill, Co. Durham; four at Staindrop. Plans by S.: *R. C. Williamson, Rowlands Gill, Co. Durham.

Barnet.—10 houses at Colney Hatch-la. site: *V. A. Howard, Ltd., £11,811.

Bath.—Conversion of part of Corsham Court into school of art, for Bath E.C. Whinney, Son & Austen Hall, architects, 37, Norfolk-st., Strand, W.C.2. W. E. Underwood & Son, quantity surveyors, Northumberland-bldgs., Bath: *Holborow & Sons, Ltd., Market-pl., Tetbury, Glos, £14,700.

Bishop Auckland.—100 Orlit houses for U.D.C.: *Tarslag, Ltd., Stockton.

Brackley.—14 houses at King's Sutton, for R.D.C.: *A. T. Kimberley, Ltd., Britannia-rd., Banbury, £17,761.

Brighton, Hove and Sussex Grammar School.—Dining-room and canteen. P. Billington (A.), A.M.T.P.I. D. J. Howe, M.I.C.E., M.I Mun.E.: *H. C. Alvey & Son, 13, Grand-parade, Brighton, £4,176.

Brixworth.—46 houses at Brixworth, Clipston, Hollowell, Sibbertoft and Welford, for R.D.C.: *Sheriff & Co., Ltd., Ireton-rd., Leicester, £63,145.

Burnley.—Dining-room and kitchen at Stoneyholme school, for E.C. A. G. Richardson, B.E.: *W. Grindlay, Ltd., Grand-bldgs., Rawtenstall, Lancs.

Chatham.—Two Primary schools at Fort Luton, for Kent E.C. Read & McDermott, 8, High-st., Rochester: *John Laing & Son, Ltd., Bunns-la., Mill Hill, N.W.7 (estimated cost, £191,000).

Derby.—School canteen and additions to buildings at Littleover Secondary Modern school, for Derbyshire E.C. F. Hamer Crossley (A.), County A., County Offices, St. Mary's Gate: *J. H. Fryer, Ltd., Great Northern-rd., Derby, £54,000.

Dover.—Buckland Valley Primary school, for Kent C.C. W. S. Willan & Stewart (F/A.), 127, Sandgate-rd., Folkestone: *C. Jenner & Son, Ltd., 53, Broadmead-rd., Folkestone (estimated cost, £85,000).

Droitwich.—"Airey" houses at Oldfields and Hanbury sites, for R.D.C. R. F. Fry, Building Inspector: *Spicers (Builders), Ltd., Ombersley-st., Worcester, £1,385 and £1,384 per house, respectively.

Droitwich.—Completion of eight houses at Stalls Farm Estate, for T.C. G. L. Robinson, B.S.: *Tanks & Linings, Ltd., Droitwich.

Easteote.—Adaptation of St. Michael's school as residential school, for Middx. E.C.: *H. Pickrill, Ltd., Wealdstone, Harrow, £10,391 (subject to M.E. approval).

Eccles.—Four additional houses at Alder Park site, for T.C. Tom Elce, B.E.: *W. Fearnley & Sons (Salford), Ltd., Eccles New-rd., Salford 5.

Failsworth.—Electrical installation in 100 "No-Fines" houses: *Alpha Manufacturing & Electrical Co., Ltd., 21, Cedars-rd., Clapham, S.W.4.

Great Yarmouth.—Erection of Beccles-rd. Junior school, Gorleston, for E.C.: *H. A. Holmes & Son, Ltd., Gorleston, Gt. Yarmouth, £67,840 (first section).

Guildford.—Eight "Airey" houses at The Sands: *Shenfield Bros., Ltd., Farnham, £11,216 (subject to M.H. approval).

Halesowen.—Structural alterations to administrative block at Isolation Hospital, Hayley Green, for North Worcs Joint Hospital Board. H. E. Folkes (F.), architect (Folkes & Folkes), 34, Hagley-rd., Stourbridge: *A. H. Guest, Ltd., Coalbourn Brook, Stourbridge.

Harrow.—Proposed Lascelles-la. Secondary Modern school, for Middx. C.C. E. G. Stillman (F.), 20, Vauxhall Bridge-rd., S.W.1: *Prestige & Co., Ltd., 149, Grosvenor-rd., S.W.1 (estimated cost, £93,500).

Hatfield.—12 "Airey" houses at Northaw, for R.D.C.: *S. B. Budge & Co., £17,506.

Hull.—Erection of The Board P.H., New Bridge-st., for T. Linsley & Co., Ltd., Daggerla., Hull. Wheatley & Houldsworth, architects, Savile House, Savile-st., Hull: *Fenner, Panton & Co., Ltd., Londesbrough-st., Hull.

Jarrow.—For adaptations and alterations at Jarrow Grange, for Ministry of National Insurance: *J. M. Black (Junior), Ltd., Rack Glen-st., Hebburn.

Jarrow.—Platers' shop for Mercantile Dry Dock Co., Ltd. Engineers: R. T. James & Partners, St. Nicholas-bldgs., Newcastle-on-Tyne: *Harbour & General Works Co., Ltd., Cannon-row, London, S.W.1.

Kensington.—Provision of loading dock facilities at Kensington (Olympia) Station, for L.M.S. and G.W.R.: *Leonard Fairclough, Ltd., Adlington, Lancs.

Leigh.—Dining-room and kitchen at Girls' Grammar school, for Lancs E.C. G. Noel Hill (F.), County A., County Offices, Fishergate-hill, Preston: *A. E. Prescott, Ltd., Holden-rd., Leigh.

London.—Reconstruction of premises at 64, Gloucester-pl., W.1, for Moore's Medical Products, Ltd., Aberdeen. Montague Evans & Son, architects, 21, Brunswick-sq., W.C.1: *Lands (Contractors), Ltd., 31, Curzon-st., W.1.

¶London (Admiralty).—*Burghfield, near Reading. W.R.N.S. Training Depot.* Recreational facilities, H. J. Gray & Sons, Ltd., Benson-st., Cambridge.

¶London (Air Ministry).—Contracts to value of £500 or over for week ended January 3:—Heating and hot water installation: Fred G. Alden, Ltd., Oxford; Bearfort & Bryett, Ltd., London, S.E.10. General maintenance work: J. H. Metcalf, Doncaster. Building work: F. Rendell & Sons, Ltd., Devizes, Wilts; Thos. Lowe & Sons, Ltd., London, W.6; W. & J. Simons, West Bridgford, Notts.

¶London (M.O.W.).—Contracts placed by M.O.W. for period ended January 1:—*London:* Greenwich Park, S.E., propagator's cottage, Henry Kent (Bldrs.), Ltd., 51, Beacon-rd., Hither Green, S.E.13. Somerset House, Strand, W.C., external painting, F. G. Minter, Ltd., 4, Buckingham-gate, S.W.1. Paddington district Post Office, hut on roof, Frank R. Freeman, Ltd., 37, Westbourne-Terr., W.2. M.O.W. Supplies Store, 175, North Circular-rd., Willesden, N.W.10, decorations, etc., C. & T. Painters, Ltd., Mordaunt-rd., Harlesden, N.W.10; Ministry of Food Store, Merrow-st., Southwark, S.E., Marston shedding, Geo. Parker & Sons, Ltd., 124, Sumner-road, Peckham, S.E.15. Buckingham Palace, S.W.1, M.O.W. workshops and stores, Thomas & Edge, 23, Greens-end, Woolwich, S.E. *Angus:* National Dock Labour Corporation, Dundee, office accommodation, Edward & Sutherland, 4, Well-rd., Dundee. M.N.I., Dundee, office buildings, Bett Bros., Ltd., Cox-st., Downfield, Dundee. Morgan Academy, Dundee, temporary classrooms, Bett Bros., Ltd., Cox-st., Downfield, Dundee. *Berks:* Cyclotron Laboratory, A.E.R.E., Harwell, supply, delivery and erection of ventilation plant, R. B. Stirling & Co., Ltd., 203, Woodville-st., Glasgow, S.W.1. Broadmoor Criminal Lunatic Asylum, boilers, etc., Cochrane & Co. (Annan), Ltd., Annan, Scotland. Kendrick Girls' School, Reading, kitchen and dining room, Collier & Catley, Ltd., St. Mary's Butts, Reading. *Caernarvonshire:* M/Agriculture and Fisheries, N.A.A.S., Bryn Adda, Bangor, installation of heating, C. Seward & Co., Ltd., Earls Villa, City-rd., Chester. *Cambs:* Cambridge University Farm, Gravel Hill Farm, Huntingdon-rd., Cambridge, construction of a land drainage experimental tank, etc., Coulson & Son, Ltd., 37, St. Andrews-st., Cambridge. *Cardiganshire:* Cardigan R.C. Area and Teifside R.D.C. Area, temporary house sites, Dudley Boswell & Co., Ltd., 6, Manby-st., Wolverhampton. *Cumberland:* Windscale works, Sellafield, supply, delivery and erection patent glazing to machine and joiners' shop, Faulkner, Green & Co., Ltd., 99-101, Redcross-way, London, S.E.1. *Devonshire:* Looe School, temporary building, J. Garrett & Son, Ltd., Embankment-ln., Prince Rock, Plymouth. *Essex:* Beal School, Ley-st., Ilford, temporary building, Hammonds & Miles, Ltd., Scraftonrd. Works, Ilford-ln., Ilford. Pathfields Secondary School, Clacton-on-Sea, additional classrooms, F. J. Huggett & Sons, 64, Station-rd., Clacton-on-Sea. *Hampshire:* St. Leonards Hospital, Ringwood, alterations and decorations, R. H. & A. W. J. Hinton, Wetheral, Deaconcres., Bitterne, Southampton. Hythe School, Southampton, kitchen and dining-room, Geo. S. Hallum & Sons, 9, Carlton-cres., Southampton; Penhale-rd. School, Portsmouth, temporary classroom, kitchen and dining-room, C. Silvester & Co., Ltd., West Town Corner, Hayling Island, Hants. *Herts:* Hockcliffe, Bedford, telephone repeater station, Ekins & Co., Ltd., Gt. Northern Works, Hertford. Kent: Northumberland Heath School, Brook-st., Erith, temporary buildings and demolition of three A.R.P. shelters, Kent & Sussex (Contractors), Ltd., 109, Station-rd., Sidcup, Kent. T.O.B., Kidbrooke, installation of electric lighting and power. General Electric Maintenance Co., 20, High-st., Pinner, Mddx.

Lanarkshire: Douglas Public School, temporary classrooms, dining-room and kitchen, Geo. Wimpey & Co., Ltd., 37, Drumsheugh-gdns., Edinburgh. Inland Revenue Office, 102, Waterloo-st., Glasgow, supply, deliver and instal an electric passenger lift, Evans Lifts, Abbey-ln., Leicester; St. Mary's R.C. Public School, Lanark, temporary classrooms, dining-room and kitchen, Geo. Wimpey & Co., Ltd., 37, Drumsheugh-gdns., Edinburgh. Coalburn Public School, Lanark, temporary classrooms, dining-room and scullery, Geo Wimpey & Co., Ltd., 37, Drumsheugh-gdns., Edinburgh. *Lancs:* Derby-rd., Huyton, temporary sorting office, John Lucas & Son (Bldrs.), Ltd., 36, Eccleston-st., Prescot, Lancs; Clifton, erection and completion 10 pairs houses, together with roads, paths, and external services, John Turner & Sons (Preston), Ltd., William Henry-st., Preston, Lancs. M/Pensions, T.O.B., Norcross, Blackpool, resurfacing of roofs, Vulcanite, Ltd., Trident Works, Seven Stars Bridge, Wigan, Government Wool Disinfecting Station, Love-la., Liverpool, supply, delivery and erection of two cast-iron storage tanks, Hughes & Lancaster, Ltd., Acrefair, Wrexham. Parcel Sorting Office, Moreton-street, Manchester, temporary extension, Robert Carlyle and Co., Ltd., Elsinmore-rd., Old Trafford, Manchester, Lancs. Longridge School, Keston-la., Preston, hutted accommodation, John Turner & Sons (Preston), Ltd., William Henry-st., Preston. Government Wool Disinfecting Station, Love-ln., Liverpool, alterations and extensions, R. Costain & Sons (Liverpool), Ltd., Barlows-ln., Fazakerley, Liverpool. *Middx:* Kenyngton Manor School, Beechwood-ave., Sunbury, kitchen and dining-room, G. T. Crouch, Ltd., 3-5, Thomas-st., Kingston-on-Thames. *Midlothian:* Moredum, Edinburgh, Arcon houses, Geo. Wimpey & Co., Ltd., 37, Drumsheugh-gdns., Edinburgh. Darroch Secondary School, Edinburgh, temporary classrooms, Hepburn Bros., Ltd., Westfield-rd., Edinburgh, 11, Ferniehill, Gilmerton, Edinburgh, to lay electricity service cable to temporary houses, City of Edinburgh Electricity Dept., Dewar-pl., Edinburgh. Niddrie Mains, Craigmillar No. 3, Edinburgh, to lay electricity services cable to houses, City of Edinburgh Electricity Dept., Dewar-pl., Edinburgh. Dalkeith R.C. School, dining-room and scullery, Geo. Wimpey & Co., Ltd., 37, Drumsheugh-gdns., Edinburgh. *Perthshire:* Tomcroy, Pitlochry, site works, Arcon houses, A. B. Kennedy & Son, Main-st., Pitlochry. *Surrey:* Holy Family Secondary School, Carshalton, temporary building, G. T. Crouch, Ltd., 3-5, Thames-st., Kingston-on-Thames. County Secondary School, Woodhatch, Reigate, temporary building, Howe & White, Ltd., 35, Manor-rd., Wallington, Surrey. Chipstead Valley County School, Valley-rd., Coulsdon, temporary buildings and demolition of two air-raid shelters, Howe & White, Ltd., 35, Manor-rd., Wallington, Surrey. Stepgates County Secondary School, Chertsey, temporary buildings, E. Clarke & Sons, Ltd., Addlestone, Surrey. Secondary County School, Hollyfield-rd., Surbiton, temporary buildings, Thorogood & Sons, 55, Bond-rd., Surbiton. *Worcs:* St. Wulstan's Emergency Hospital, Malvern, conversion into tuberculosis hospital, Wilson Lovatt & Sons, Ltd., Clarence-st., Wolverhampton. *Yorks:* Kilham C/E School, nr. Sheffield, kitchen and dining-room, A. J. Darneley & Son, Ltd., 68, Spring-st., Hull.

¶London (War Dept.).—Works contracts placed by War Dept. for week ended December 30:—

Warwickshire: Miscellaneous work, A. Pearce & Son, Birmingham; roadwork, W. & J. Glossop, Ltd., Oshaldwick, York. *Essex:* Drainage work, Barvis Partners, Ltd., Brentwood. *London, N.W.:* Miscellaneous work, Messrs. McManus & Co., Ltd., Whetstone, N.20.

Marylebone.—Adaptation of 18, Marlborough-pl. and 78, Upper Berkeley-st.: Allsites, Ltd., 56, Pall-mall, S.W.1. £2,214 and £2,197.

Middlesbrough.—Additional houses for T.C.: *J. H. Jones (2); *W. Hall & Son (4); *W. H. Causier (4); *H. L. Goodrun (4); *J. Oakley (6); *C. Athey (6); *H. Halliman (6); *J. C. Mitchell (6); *J. Cresswell (6).

Newcastle-on-Tyne.—Alterations at Haymarket Transport depot, for City Council: *R. S. Appleby & Co., Ltd., 123-125, Clayton-st., Newcastle-on-Tyne.

Norfolk.—Completion of buildings internally and site works, verandahs, fencing, etc., externally at Cromer Modern Secondary school, for E.C. F. G. Limmer (F.), Ed. Architect, Stracey-rd., Norwich: *B. E. Gotts, Mundesley, £12,423.

Norfolk.—Adaptation of Holt Hall into residential hostel, for E.C. F. G. Limmer (F.), Ed. Architect, Stracey-rd., Norwich: *F. Woodrow, Holt, £3,304.

Norfolk.—Adaptation of "Colne Cottage" and "The Croft," Cromer, as a hostel for maladjusted children, for E.C. F. G. Limmer (F.), Ed. Architect, Stracey-rd., Norwich: *Cole & Howell, Marsham, £2,937.

Northampton.—Primary school at Duston, for

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Northamptonshire E.C. J. Perkins (F.), C.A., County Hall: *G. F. Sharman & Son, Ltd., 124, Abington-av., Northampton, £22,961.

Norwich.—Rebuilding of first section of factory at Chapel Fields, for A. J. Caley, Ltd. Frederick S. Snow & Partners, Monro-bldgs., Wellington-st., W.C.2, architects. E. R. Babbs & Partners, *40, St. James's-pl., S.W.1, quantity surveyors: *J. Youngs & Sons, Ltd., 24, City-rd., Norwich. Steelwork: *Dawnays, Ltd., The Close, Norwich.

Notts.—Beeston Rylands Infants' school, for Notts C.C. E. W. Roberts (F.), architect, Shire Hall, Nottingham. Foundations: *Brough & Co., Beeston, Nottingham (total cost, £100,000).

Nuneaton.—Provision and erection of 56 aluminium bungalows, for T.C.: *A. W. Hawkesley, Ltd., £81,859.

Ogwen.—20 houses at Caerhun and Talybont, site works, water supply, sewers and sewage disposal works, for R.D.C. Roland T. Jones (L.), Midland Bank-chbrs., Bangor: *William Evans & Sons (Pentraeth), Ltd., Maeslodwig Yard, Station-rd., Bangor.

Oldham.—Electrical installation in 172 "No-Fines" houses: *Alpha Manufacturing & Electrical Co., Ltd., 21, Cedars-rd., Clapham, S.W.4.

Pinner.—Headstone-la. Secondary Modern school, for Middx. C.C. E. G. Stillman (F.), 20, Vauxhall Bridge-rd., S.W.1: *Anglo-Scottish Construction Co., Ltd., 1, The Ridgeway, Wimbledon, S.W.19 (estimated cost, £245,768).

Rochdale.—Dining-room and kitchen at Meanwood school, for E.C. S. H. Morgan, B.S.: *Jones & Craig, 11, Brookleigh-av., Withington, Manchester 20.

Salford.—Offices and transport department at Chapel-st., for D. C. Thomson & Co., Ltd. Matley, Brotherton & Mills, architects, 39, Oxford-st., Manchester 1: *Alfred Hodkinson, Ltd., 62, Greenhill-st., Greenheys, Manchester.

Sevenoaks (Kent).—Wildernesse Primary school, for C.C. S. H. Loweth (F.), County A., with R. T. Green (F.), Deputy County A., Springfield, Maidstone: *Nox, Ltd., 55, New Bond-st., W.1 (estimated cost, £70,000).

Shoreditch.—Rebuilding factory at junction of Ebenezer-st. and Britannia-walk, for R. Pye & Co., Ltd. Welch & Lander (FF.), 38, Gloucester-pl., W.1: *C. Tavener & Son, Ltd., 112, Finchley-rd., N.W.3.

Silvertown.—Extension of factory premises at North Woolwich-rd., for Pinchin, Johnson & Co., Ltd. Oscar Faber, D.Sc., consulting engineer, 4, Verulam-bldgs., Gray's Inn, W.C.1: *Greenaway & Sons, Ltd., 265, Lordship-la., Dulwich, S.E.

Skipton.—10 houses at Park-av., Sutton, for R.D.C.: *W. Smith, Bingley.

Southport.—Repairs at Farnborough-rd. school, for T.C.: *T. Southworth & Sons, Ltd., 142, Virginia-st., Southport.

Stourbridge.—30 houses at Norton Estate part 2, for T.C. G. N. Maynard, B.S., The Council House: *George Wright (Wolverhampton), Ltd., Queen-sq., Wolverhampton, £43,565.

Sunderland.—Rebuilding part of factory at Middle-st., for W. Robson, Ltd. Architects: Matkin & Hawkins, Barclays Bank-chbrs., Fawcett-st., Sunderland: *J. Huntley & Son, Marion-st., Sunderland.

Swadlincote.—Supply and erection of 89 aluminium bungalows at Newhall and Swadlincote, for U.D.C.: *A. W. Hawksley, Ltd., Gloucester.

Swale.—12 "Airey" houses at Graveney; *Wraight, Ltd. (Canterbury Branch), £17,410; 12 "Airey" houses at Provender-rd., Norton: *Wraight, Ltd. (Sittingbourne Branch), £11,129.

Walsall.—Factory, offices, etc., at Bott-la. Architects: Hickton, Madeley & Salt, Ashley House, Hatherton-rd., Walsall: *Molyneux Bros., Bath-st., Walsall.

West Hartlepool.—Canteen extensions at Hart County school: *J. Peel, 34, Glentower-gr., Seaton Carew, West Hartlepool.

West Hartlepool.—36 houses for T.C. at Dyke House estate: *T. A. Young (6); *J. Peel (4); *W. W. Brazell (4); *C. M. Yuill, Ltd. (12); *T. M. Stonehouse, Ltd. (10). All of West Hartlepool.

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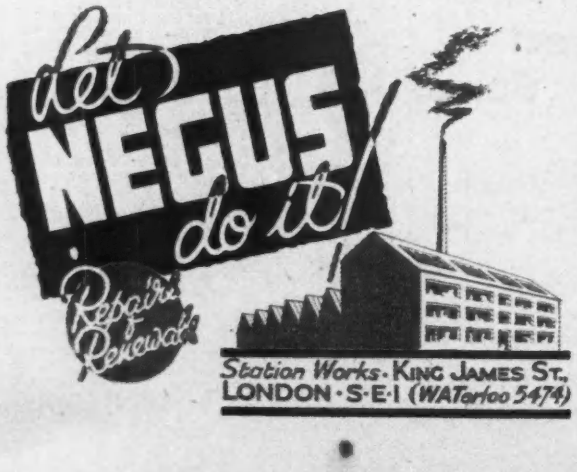

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